As filed with the Securities and Exchange Commission on October 11, 2022.

Registration No. 333-267392

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Amendment No. 1
to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ASP Isotopes Inc.

(Exact name of Registrant as specified in its charter)

Delaware	2890	87-2618235
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

433 Plaza Real, Suite 275
Boca Raton, Florida 33432
(561) 709-3034
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Paul E. Mann
Chairman and Chief Executive Officer
ASP Isotopes Inc.
433 Plaza Real, Suite 275
Boca Raton, Florida 33432
(561) 709-3034
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public:
As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box: ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated file	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, Dated October 11, 2022

2,000,000 Shares

ASP Isotopes Inc.

Common Stock

This is the initial public offering of shares of common stock of ASP Isotopes Inc. We are offering 2,000,000 shares of common stock.

No public market currently exists for our common stock. We have applied to list our common stock on the Nasdaq Capital Market under the symbol "ASPI."

We anticipate that the initial public offering price per share will be between $ 5.00 and $7.00.

We are an "emerging growth company" as defined under the federal securities laws, and as such, we have elected to comply with certain reduced reporting requirements for this prospectus and may elect to do so in future filings.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 8 of this prospectus.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discount[(1)]	$	$
Proceeds, before expenses, to ASP Isotopes Inc.[(1)]	$	$

(1) We have agreed to pay Revere Securities LLC, as representative of the underwriters named in this prospectus, or the Representative, a discount equal to 7.0% of the gross proceeds of the offering. See the section titled "Underwriting" for additional information regarding underwriting discounts, commissions and estimated offering expenses.

To the extent that the underwriters sell more than 2,000,000 shares of common stock, the underwriters have a 45-day option to purchase up to an additional 300,000 shares of common stock from us at the initial public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on , 2022.

Sole Book Running Manager

Revere Securities LLC

Prospectus dated , 2022.

TABLE OF CONTENTS

	Page
Prospectus Summary	1
Risk Factors	8
Special Note Regarding Forward-Looking Statements	40
Market, Industry and Other Data	42
Use of Proceeds	43
Dividend Policy	44
Capitalization	45
Dilution	47
Management’s Discussion and Analysis of Financial Condition and Results of Operations	49
Business	61
Management	80
Executive Compensation	86
Certain Relationships and Related Party Transactions	94
Principal Stockholders	98
Description of Capital Stock	100
Shares Eligible for Future Sale	105
Material U.S. Federal Income Tax Considerations to Non-U.S. Holders	107
Underwriting	111
Legal Matters	115
Experts	115
Where You Can Find Additional Information	115
Index to Consolidated Financial Statements	F-1

You should rely only on the information contained in this prospectus and any free writing prospectus that we may provide to you in connection with this offering. Neither we nor the underwriters have authorized anyone to provide you with different information or to make any other representations, and neither we nor the underwriters take responsibility for, and can provide no assurance as to the reliability of, any other information others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only under circumstances and in jurisdictions where it is lawful to do so. Neither we nor any of the underwriters are making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than its date. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor any ofthe underwriters have done anything that would permit this offering or the possession or distribution of this prospectus in any jurisdiction where action for those purposes is required, other than in the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of our common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights selected information that is presented in greater detail elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, including the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements and the related notes included elsewhere in this prospectus before making an investment decision. Unless the context otherwise requires, the terms "Company," "we," "us," "our" or similar terms refer to ASP Isotopes Inc. together with its consolidated subsidiaries.

The Company

We are a pre-commercial stage advanced materials company dedicated to the development of technology and processes that, if successful, will allow for the production of isotopes that may be used in several industries. We have an exclusive license to use proprietary technology, the Aerodynamic Separation Process ("ASP technology"), originally developed and licensed to us by Klydon Proprietary Ltd ("Klydon"), for the production, distribution, marketing and sale of all isotopes. Our initial focus is on the production and commercialization of enriched Molybdenum-100 ("Mo-100"). Klydon has agreed to provide us a first commercial-scale Mo-100 enrichment plant located in South Africa with a manufacturing capacity of 20 kg/year of 95% enriched Mo-100 when fully operational. We believe that the Mo-100 we may develop using the ASP technology has significant potential advantages for use in the preparation of nuclear imaging agents by radiopharmacies and others in the medical industry. We also intend to use the ASP technology licensed to us by Klydon to produce enriched Uranium-235 ("U-235"). We believe that the U-235 we may develop using the ASP technology may be commercialized as a nuclear fuel component for use in the new generation of HALEU-fueled small modular reactors that are now under development for commercial and government uses.

We may also seek to use the ASP technology to separate Silicon-28, which we believe has potential application in the quantum computing target end market, and Carbon-14, which we believe has potential application in the pharma/agrochem target end market. In addition, we are considering future development of the ASP technology for the separation of Zinc-68, Ytterbium-176, Zinc-67, Nickel-64 and Xenon-136 for potential use in the healthcare target end market, and Chlorine -37 and Lithium-6 for potential use in the nuclear energy target end market.

We operate principally through subsidiaries: ASP Isotopes Guernsey Limited (the holding company of ASP Isotopes South Africa (Proprietary) Limited), which will be focused on the development and commercialization of high value, low volume isotopes for highly specialized end markets (such as Mo-100 and others, including Silicon-28); Enriched Energy LLC, which will be focused on the development and commercialization of uranium for the nuclear energy market; and ASP Isotopes UK Ltd, which is the licensee of the ASP technology under the exclusive license agreement with Klydon.

Background

We were incorporated in Delaware in September 2021 to acquire assets and license intellectual property rights related to the production of Mo-100 using the ASP technology. The aerodynamic separation technique has its origins in the South African uranium enrichment program in the 1980s and the ASP technology has been developed during the last 18 years by the scientists at Klydon. In Klydon's testing, the ASP technology has demonstrated efficacy and commercial scalability in the enrichment of oxygen-18 and silicon-28. In July 2022, ASP Isotopes UK Ltd, as licensee, entered into a license agreement with Klydon, as licensor, pursuant to which ASP Isotopes UK Ltd acquired from Klydon an exclusive license to use, develop, modify, improve, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the production, distribution, marketing and sale of all isotopes produced using the ASP technology (the "Klydon license agreement"). The Klydon license agreement is royalty-free, has a term of 999 years and the license is worldwide for the development of the ASP technology and the distribution, marketing and sale of isotopes. Future production of isotopes is limited to member countries of the Nuclear Suppliers Group. We have no products approved for commercial sale or existing customers and have generated no revenues to date. We have not yet built a functioning Mo-100 or U-235 enrichment plant or even demonstrated the ability to produce Mo-100 or U-235 using the ASP technology.

Dr Einar Ronander, who serves as Chief Scientific Adviser to our board of directors, and Dr Hendrik Strydom, one of our directors, previously co-founded and currently serve as Executive Chairperson and Chief Executive Officer, of Klydon. Dr Ronander and Dr Strydom are the controlling shareholders of Klydon through Isotope Separation Technology (Pty) Ltd, a company jointly owned by Dr Ronander and Dr Strydom and the largest shareholder of Klydon. Dr Ronander and Dr Strydom each own approximately 11.9% of our outstanding shares of common stock. Immediately following the closing of this offering, Dr Ronander and Dr Strydom will each own 11.2% of our outstanding shares of common stock (or approximately 11.1% of our common stock, if the underwriters exercise in full their option to purchase additional shares of our common stock in this offering). For more information on our transactions with Klydon, see the section of this prospectus entitled "Certain Relationships and Related Party Transactions — Our Relationship with Klydon Proprietary Limited").

Our Strategy

Our goal is to develop technology and processes that, if successful, will allow for the production of isotopes that may be used in the medical isotopes, nuclear power or other industries. Key elements of our strategy to achieve this goal include:

- Complete development and commissioning of Mo-100 enrichment facility located in Pretoria, South Africa.
- Demonstrate the capability to produce Mo-100 using the ASP technology and capitalize on the opportunity to solve the Mo-99 supply chain challenges in the existing medical isotope market.
- Introduce Mo-100 produced using ASP technology as an alternative and potentially more convenient production route for Tc-99m.
- Explore commercial opportunities for Silicon-28 and other light isotopes that may be produced using the assets comprising a dormant Silicon-28 aerodynamic separation processing plant acquired from Klydon in July 2022 (which are also located in Pretoria, South Africa).
- Continue identifying potential offtake customers and strategic partners for Mo-100. We expect limited commercial activity for Mo-100 in the United States during the next two to three years and we anticipate that most of our initial revenues from future sales of our Mo-100 will be derived from countries in Asia and EMEA (Europe, Middle East and Africa).
- Demonstrate the capability to produce high-assay low-enriched uranium (HALEU) using the ASP technology and meet anticipated demand for the new generation of HALEU-fueled small modular reactors and advanced reactor designs that are now under development for commercial and government uses.

Mo-100 Regulatory Approvals

We have not sought any regulatory approval for the application of Mo-100. Currently, the sale or use of Mo-100 is not regulated by a healthcare regulator, such as the FDA, European Medicines Agency (EMA) or comparable foreign regulatory authorities. However, products such as Mo-99 and Tc-99m that are produced from Mo-100 in a cyclotron or a linear accelerator are regulated by healthcare regulators. Our future customers who may use Mo-100 to produce radiopharmaceuticals will likely require regulatory approval for their products. To date, only one healthcare regulator (Canada) has approved the use of Tc-99m produced from Mo-100 via a cyclotron. Obtaining regulatory approval is expensive and can take many years to complete, and its outcome is inherently uncertain. Our customers' regulatory approval process may not be conducted as planned or completed on schedule, if at all, and failure can occur at any time during the process.

Intellectual Property

We have an exclusive worldwide license to use, develop, modify, improve, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the production, distribution, marketing and sale of all isotopes produced using the ASP technology. The intellectual property rights granted to us through the Klydon license agreement include all existing and/or future proprietary rights of Klydon relating to the ASP technology, whether or not such rights have been registered including the copyright, designs, know-how,

patents and trademarks (although Klydon currently has no such patents, patent applications or copyrights). Klydon has spent the last 18 years and tens of millions of dollars developing the aerodynamic separation technique used in the ASP technology, generating critical trade secrets. Neither we nor Klydon have any existing patents, pending patent applications or copyrights. To date, we and Klydon have relied exclusively on trade secrets and other intellectual property laws, non-disclosure agreements with our respective employees, consultants, vendors, potential customers and other relevant persons and other measures to protect our intellectual property, and intend to continue to rely on these and other means.

Summary Risk Factors

Investing in our common stock involves substantial risks, which are discussed more fully under the heading “Risk Factors” immediately following this summary. You should carefully consider all the information in this prospectus, including under “Risk Factors,” before making an investment decision. The risks described under the heading “Risk Factors” may cause us to not realize the full benefits of our strengths or may cause us to be unable to successfully execute all or part of our strategy. Some of the more significant challenges include the following:

- We have a very limited operating history, and we have incurred losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.
- The report of our independent registered public accounting firm for the period from September13, 2021 (inception) through December 31, 2021 contains an explanatory paragraph that expresses substantial doubt about our ability to continue as a “going concern.”
- Even if this offering is successful, we will require substantial additional capital to finance our operations, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate certain of our development efforts or other operations.
- To become and remain profitable, we must succeed in developing and eventually commercializing isotopes that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing research and development activities relating to our ASP technology, obtaining applicable regulatory approval for future isotopes, if any, and manufacturing, marketing and selling any future isotopes. We are only in the process of completing research and development activities relating to our ASP technology.
- Because we have targeted both Mo-100 and U-235 for production using the ASP technology, we may expend our limited resources to pursue a particular isotope and fail to capitalize on another isotope that may be more profitable or for which there is a greater likelihood of commercial success.
- We face substantial competition, which may result in others developing or commercializing isotopes before or more successfully than us.
- The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if our customers are ultimately unable to obtain regulatory approval for our Mo-100, our business will be substantially harmed.
- Klydon currently performs or supports many of our development activities and will continue to do so after the closing of this offering pursuant to our turnkey agreement, and if we are unable to replicate or replace these functions if this services agreement is terminated, our operations could be adversely affected.
- Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

- We have identified a material weakness in our internal control over financial reporting, and if our remediation of this material weakness is not effective, or if we experience material weaknesses in the future or otherwise fail to implement and maintain an effective system of internal controls in the future, we may not be able to accurately report our financial condition or results of operations which may adversely affect investor confidence in us, and as a result, the value of our common stock.
- Sales of a substantial number of shares of our common stock by our existing stockholders in the public market, or the perception that such sales could occur, could cause our stock price to fall.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- reduced obligations with respect to financial data, including presenting only two years of audited financial statements and only two years of selected financial data;
- an exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act;
- reduced disclosure about our executive compensation arrangements in our periodic reports, proxy statements, and registration statements; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards, and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies or that have opted out of using such extended transition period, which may make comparison of our financial statements with those of other public companies more difficult. We may take advantage of these reporting exemptions until we no longer qualify as an emerging growth company, or, with respect to adoption of certain new or revised accounting standards, until we irrevocably elect to opt out of using the extended transition period.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; and (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We may choose to take advantage of some but not all of these reduced reporting burdens.

Corporate Information

We were incorporated in Delaware in September 2021. Our principal executive offices are located at 433 Plaza Real, Suite 275, Boca Raton, Florida 33432, and our telephone number is (561) 709-3034. Our website address is www.aspisotopes.com. Information contained on, or that can be accessed through, our website is not part of and is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

The Offering

Common stock offered by us	2,000,000 shares
Common stock outstanding after this offering	32,107,127 shares (or 32,407,127 shares if the underwriters exercise their option to purchase additional shares in full).
Option to purchase additional shares of common stock offered in this offering	We have granted the underwriters an option, exercisable for 45 days from the date of this prospectus, to purchase up to an additional 300,000 shares from us.
Use of proceeds	We estimate that the net proceeds to us from the sale of shares of our common stock in this offering will be approximately $10.2 million (or approximately $11.9 million if the underwriters' option to purchase additional shares is exercised in full) based upon the assumed initial public offering price of $6.00 per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discount and estimated offering expenses payable by us. The principal purposes of this offering are to increase our capitalization and financial flexibility, create a public market for our common stock and thereby enable access to the public equity markets for us and our stockholders. We initiated Phase 1 of the Mo-100 development plan under the turnkey contract, targeting 5 kg/year of 95% enriched Mo-100, in October 2021 and we expect to complete this phase using cash on hand during the second half of 2022. Upon completion of Phase 1, we intend to use a portion of the net proceeds from this offering (currently estimated to be approximately $6.0 million of the total net proceeds) to initiate and fully fund Phase 2 of the Mo-100 development plan under the turnkey contract, which targets expanded production of up to 20 kg/year of 95% enriched Mo-100. We intend to use the remainder of the net proceeds we receive from this offering for research and development for potential additional isotopes that we may offer, as well as headcount costs, working capital and other for general corporate purposes. See "Use of Proceeds" for a more complete description of the intended use of proceeds from this offering.
Voting rights	Shares of our common stock are entitled to one vote per share.
Underwriter compensation	In connection with this offering, the underwriters will receive an underwriting discount equal to 7.0% of the offering price of the shares of common stock in the offering. In addition, we have agreed to: (i) reimburse the Representative for fees and expenses of legal counsel and other out-of-pocket expenses incurred in connection with this offering up to $150,000, plus closing costs not to exceed $12,900; (ii) reimburse the Representative for certain additional accountable expenses of the representative; (iii) provide the Representative with "tail" financing compensation under certain circumstances; and (iv) indemnify the underwriters for certain liabilities in connection with this offering. See "Underwriting".

Concentration of Ownership	Upon the completion of this offering, our executive officers and directors, and their affiliates, will beneficially own, in the aggregate, approximately 33.6% of our outstanding shares of common stock, representing approximately 33.6% of the voting power of our outstanding shares of common stock (based on shares of common stock outstanding as of September 30, 2022 and excluding awards of 3,000,000 shares of restricted stock that we anticipate making upon the effectiveness of the registration statement of which this prospectus is a part).
Risk factors	You should read the section entitled "Risk Factors" and the other information included elsewhere in this prospectus for a discussion of some of the risks and uncertainties you should carefully consider before deciding to invest in our common stock.
Dividend policy	We currently do not intend to declare any dividends on our common stock in the foreseeable future. Our ability to pay dividends on our common stock may be limited by the terms of any future debt or preferred securities we may issue or any future credit facilities we may enter into. See the section titled "Dividend Policy."
Proposed Nasdaq Capital Market trading symbol	"ASPI"

The total number of shares of our common stock that will be outstanding after this offering is based on 30,107,127 shares of common stock outstanding as of September 30, 2022 and excludes:

- 2,901,000 shares of our common stock issuable upon the exercise of options outstanding as of September 30, 2022 under our 2021 Stock Incentive Plan, or the 2021 Plan, at a weighted-average exercise price of $1.91 per share; and
- 5,000,000 shares of common stock reserved for future issuance under our 2022 Equity Incentive Plan, or the 2022 Plan, under which we expect to make all future awards (including awards to our executive officers, directors and consultants of 3,000,000 shares of restricted stock that we anticipate making upon the effectiveness of the registration statement of which this prospectus is a part); and
- 120,491 shares of common stock issuable to Revere Securities LLC as partial compensation for its role as placement agent in connection with an unregistered offering of shares of common stock.

Unless otherwise indicated, this prospectus assumes or gives effect to the following:

- the filing and effectiveness of our amended and restated certificate of incorporation to be effective immediately prior to the closing of this offering, or our Certificate of Incorporation, and the adoption of our amended and restated bylaws to be effective immediately prior to the closing of this offering, or our Bylaws; and
- no exercise by the underwriters of their option to purchase 300,000 additional shares of our common stock.

Summary Consolidated Financial Data

The following tables present our summary consolidated financial data as of and for the period indicated. The statement of operations and comprehensive loss data for the six-month period ended June 30, 2022, and the balance sheet data as of June 30, 2022, are derived from our unaudited financial statements that are included elsewhere in this prospectus.

You should read this data together with our audited consolidated financial statements and related notes, as well as the information under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations," included elsewhere in this prospectus. The summary financial data in this section are not intended to replace our financial statements and the related notes and are qualified in their entirety by the financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of results that should be expected in any future period.

	For the period of six months ended June 30, 2022
Consolidated Statement of Operations Data:	
Operating expenses:	
Research and development	446,440
General and administrative	1,239,772
Total operating expenses	1,686,212
Other income	
Interest income	1,454
Total other income	1,454
Net loss	(1,684,758)
Other comprehensive loss:	
Foreign currency translation	125,271
Total comprehensive loss	(1,559,487)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.06)
Weighted average common shares outstanding, basic and diluted	27,898,098

	As of June 30, 2022	
	Actual	Pro Forma, As Adjusted(1)(2)
		(unaudited)
Balance Sheet Data:		
Cash	$ 2,813,411	$ 13,202,611
Working capital(3)	$ 1,741,235	$ 11,976,235
Total assets	$ 10,027,052	$ 20,262,052
Total liabilities	$ 2,618,514	$ 2,618,514
Total stockholders' equity	$ 7,408,538	$ 17,643,538

(1) The pro forma as adjusted column reflects the sale of 2,000,000 shares of our common stock offered in this offering, assuming an initial public offering price of $6.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(2) A $1.00 increase or decrease in the assumed initial public offering price of $6.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the pro forma as adjusted amount of each of cash, cash equivalents and investments, working capital, total assets and total stockholders' equity by $1.9 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions. An increase or decrease of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease the pro forma as adjusted amount of each of cash, cash equivalents and investments, working capital, total assets and total stockholders' equity by $5.6 million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions. This pro forma as adjusted information is illustrative only and will depend on the actual initial public offering price and other terms of this offering determined at pricing.

(3) We define working capital as current assets less current liabilities. See our consolidated financial statements for further details regarding our current assets and current liabilities. See our financial statements and related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

RISK FACTORS

An investment in our common stock involves a high degree of risk. In deciding whether to invest, you should carefully consider the following risk factors, as well as the financial and other information contained in this prospectus, including our consolidated financial statements and related notes. Any of the following risks could have a material adverse effect on our business, financial condition, results of operations or prospects and cause the value of our stock to decline, which could cause you to lose all or part of your investment. Additional risks and uncertainties of which we are unaware, or that we currently deem immaterial also may become important factors that affect us.

Risks Related to Our Limited Operating History, Financial Position and Need For Additional Capital

We have a very limited operating history, and we have incurred losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.

We were incorporated in September 2021 and we have a very limited operating history upon which you can evaluate our business and prospects. Our operations to date have been primarily focused on acquiring the assets of Molybdos (after participating in and being declared the winner of a competitive auction process under Section 45 of the *South Africa Consumer Protection Act, 2008* for ZAR 11,000,000, which at the then current exchange rate was approximately USD 734,000)) and in-licensing intellectual property rights related to the production of Molybdenum-100 (a non-radioactive isotope we believe may have applications primarily in the medical industry) and Uranium-235 (an isotope of uranium we believe may have application in the clean, efficient and carbon-free energy industry) using the ASP technology, organizing and staffing our company, research and development activities, business planning, raising capital, and providing general and administrative support for these operations. In July 2022, we acquired assets comprising a dormant Silicon-28 aerodynamic separation processing plant from Klydon for ZAR 6,000,000 (which at the then current exchange rate was approximately USD 364,000), which will be payable to Klydon on the later of 180 days of the acquisition and the date on which the assets generate any revenues of any nature. We have not yet built a functioning Mo-100 or U-235 manufacturing plant or even demonstrated the ability to produce Mo-100 or U-235 using the ASP technology. We have not yet demonstrated an ability to overcome many of the risks and uncertainties frequently encountered by companies in the medical, technology and energy industries, including an ability to obtain applicable regulatory approvals, manufacture any isotopes at commercial scale (or arrange for a third party to do so on our behalf), or conduct sales and marketing activities necessary for successful isotope commercialization. In addition, we have not yet sought any regulatory approval that may be necessary for application of Mo-100 that we may develop using the ASP process in the medical industry. Consequently, any predictions about our future performance may not be as accurate as they would be if we had a history of successfully developing and commercializing isotopes.

Investment in isotope enrichment technology is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential isotopes will fail to demonstrate adequate utility or effectiveness in the targeted application (or for medical indications, an acceptable safety profile), gain regulatory approval, if applicable, and become commercially viable. We have no products approved for commercial sale and have not generated any revenue to date, and we continue to incur significant research and development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred losses since our inception in September 2021. For the period from September 13, 2021 (inception) through December 31, 2021, we reported a net loss of $2.6 million. For the six-month period ended June 30, 2022, we reported a net loss of $1.7 million. As of June 30, 2022, we had an accumulated deficit of $4.3 million.

We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase as we:

- continue to invest in our research and development activities;
- seek applicable regulatory approvals for any future isotopes that we may successfully develop;
- experience any delays or encounter any issues with any of the above, including but not limited to failed research and development activities, safety issues or other regulatory challenges, the risk of which in each case may be exacerbated by the ongoing COVID-19 pandemic;

- hire additional engineering and production personnel and build our internal resources, including those related to audit, patent, other legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums and investor and public relations costs;
- obtain, expand, maintain, enforce and protect our intellectual property portfolio;
- establish a sales, marketing and distribution infrastructure and establish manufacturing capabilities, whether alone or with third parties, to commercialize future isotopes (assuming receipt of applicable regulatory approvals), if any; and
- operate as a public company.

We expect limited commercial activity for Mo-100 in the United States during the next two to three years and we anticipate that most of our initial revenues from future sales of our Mo-100 will be derived from countries in Asia and EMEA (Europe, Middle East and Africa). To become and remain profitable, we must succeed in developing and eventually commercializing isotopes that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing research and development activities relating to our ASP technology, obtaining applicable regulatory approval for future isotopes, if any, and manufacturing, marketing and selling any future isotopes (assuming receipt of applicable regulatory approvals). We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability. Because of the numerous risks and uncertainties associated with chemical isotopes separation, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our future isotopes or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Our future prospects are tied directly to the diagnostic medical imaging industry and depend on our ability to successfully introduce our Mo-100 and adapt to a changing technology and medical practice landscape.

The field of diagnostic medical imaging is dynamic, with new products, including equipment, software and products, continually being developed and existing products continually being refined. New hardware (scanners), software or agents in a given diagnostic modality may be developed that provide benefits superior to the then-dominant hardware, software and agents in that modality, resulting in commercial displacement of the existing radiotracers. For example, alternate scanners and radiotracers could be introduced. Similarly, changing perceptions about comparative efficacy and safety, as well as changing availability of supply may favor one agent over another or one modality over another. In addition, new or revised appropriate use criteria developed by professional societies, to assist physicians and other health care providers in making appropriate imaging decisions for specific clinical conditions, can and have reduced the frequency of and demand for certain imaging modalities and imaging agents. Technological obsolescence in any of the medical imaging products that would use the Mo-100 that we plan to manufacture could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We may not realize the anticipated benefits of previous acquisitions.

The success of the company will depend in large part on the success of our management in integrating the acquired assets into the company. In October 2021, our subsidiary in South Africa acquired the assets of Molybdos after participating in and being declared the winner of a competitive auction process under Section 45 of the *South Africa Consumer Protection Act, 2008* for ZAR 11,000,000 (which at the then current exchange rate was approximately USD 734,000), plus value added tax (VAT) levied by the government of South Africa at the rate of 15% and auctioneers' commission at the rate of 10%. We have not yet built a functioning Mo-100 or U-235 manufacturing plant or even demonstrated the ability to produce Mo-100 or U-235 using the assets acquired at the business rescue auction. We will not know whether the assets that we acquired will work according to our expectations until we have completed construction of the Molybdos plant as contemplated by our turnkey contract with Klydon (see the section of this prospectus entitled "Certain Relationships and Related Party Transactions — Our Relationship with Klydon Proprietary Limited — Turnkey Contract"). In July 2022, we acquired assets comprising a dormant Silicon-28 aerodynamic separation processing plant from Klydon

located in Pretoria, South Africa for ZAR 6,000,000 (which at the then current exchange rate was approximately USD 364,000). We intend to explore commercial opportunities for Silicon-28 and other light isotopes that may be produced using these assets. Our failure to achieve the integration of the acquired assets into the company and to commercialize the assets could result in our failure to realize the anticipated benefits of those acquisitions and could impair our results of operations, profitability and financial results.

We currently have no customers or sales, but we expect to be heavily dependent on a few large customers to generate a majority of our revenues for our Mo-100. Our operating results could be adversely affected by a reduction in business with our future significant customers.

We currently have no customers or sales. However, we expect to rely on a limited number of customers outside of the United States to purchase any Mo-100 that we develop using the ASP technology under long-term contracts. Our future key customers may stop ordering our Mo-100 at any time or may become bankrupt or otherwise unable to pay. The loss of any of our future key customers could result in lower revenues than we anticipate and could harm our business, financial condition or results of operations.

Our independent registered public accounting firm's report contains an explanatory paragraph that expresses substantial doubt about our ability to continue as a "going concern."

We incurred a net loss of $2.6 million for the period from September 13, 2021 (inception) through December 31, 2021 and a net loss of $1.7 million for the six-month period ended June 30, 2022. As of June 30, 2022, we had approximately $2.8 million in cash. We have yet to generate any revenues and we anticipate that our losses will continue for the foreseeable future. We cannot assure you that our plans to commercialize isotopes that we may develop will be successful. These factors, among others, raise substantial doubt about our ability to continue as a going concern. The financial statements contained elsewhere in this report do not include any adjustments that might result from our inability to continue as a going concern. Unless we can begin to generate material revenue, we may not be able to remain in business. We cannot assure you that we will raise enough money or generate sufficient sales to meet our future working capital needs.

Even if this offering is successful, we will require substantial additional capital to finance our operations, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate certain of our product development efforts or other operations.

We expect our expenses to increase substantially in connection with our ongoing and planned activities, particularly as we continue our research and development activities, seek applicable regulatory approvals for any future isotopes that we may successfully develop, and expand our organization by hiring additional personnel. In addition, following the closing of this offering, we expect to incur additional costs associated with operating as a public company.

As of June 30, 2022, our cash was approximately $2.8 million. We believe, based on our current operating plan, that the net proceeds from this offering, together with our existing cash and cash equivalents, will be sufficient to fund our operations for at least the next 12 months after the closing of the offering. However, our operating plan may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings, third-party funding, marketing and distribution arrangements, as well as other collaborations, strategic alliances and licensing arrangements, or any combination of these approaches.

In any event, we will require substantial additional capital to support our business operations as we pursue additional research and development activities related to our ASP technology and seek applicable regulatory approval of our any future isotopes, and otherwise to support our continuing operations. In addition, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution (assuming receipt of applicable regulatory approvals for our future isotopes). Even if we believe we have sufficient capital for our current or future operating plans, we may seek additional capital if market conditions are favorable or if we have specific strategic considerations. Any additional capital raising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our future isotopes (assuming receipt of applicable regulatory approvals).

Additional funding may not be available on acceptable terms, or at all. We have agreed to pay the underwriter of this offering "tail compensation" equal to 8.0% of the aggregate gross proceeds received by us from the sale of our common stock in any private or public offering or other financing or capital-raising transaction of any kind within the 12 month period following the effective date of the registration statement of which this prospectus is a part. As a result of the COVID-19 pandemic and actions taken to slow its spread, the global credit and financial markets have experienced extreme volatility and disruptions, including severely diminished liquidity and credit availability. If the equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly or more dilutive. If we do not raise additional capital in sufficient amounts, we may be prevented from pursuing development and commercialization efforts, which will harm our business, operating results and prospects.

Raising additional capital or acquiring or licensing assets by issuing equity or debt securities may cause dilution to our stockholders, and raising funds through lending and licensing arrangements may restrict our operations or require us to relinquish proprietary rights.

We may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. The incurrence of indebtedness would result in increased fixed payment obligations and could involve certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we raise additional capital through future collaborations, strategic alliances or third-party licensing arrangements, we may have to relinquish valuable rights to our intellectual property, future revenue streams, research programs or future isotopes, or grant licenses on terms that may not be favorable to us.

If we are unable to raise additional capital when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts, or grant rights to develop and market our future isotopes (assuming receipt of applicable regulatory approvals for our future isotopes) that we would otherwise develop and market ourselves.

Risks Related to the Development and Commercialization of Our Future Isotopes

We are early in our research and development efforts for Mo-100 and U-235 using the ASP technology. If we are unable to advance our future isotopes in development, obtain applicable regulatory approval and ultimately commercialize our future isotopes, or experience significant delays in doing so, our business will be materially harmed.

We are early in our research and development efforts and currently have only Mo-100, a non-radioactive isotope we believe may have applications primarily in the medical industry (for use by radiopharmacies, hospitals, clinics and others in the medical community to prepare various nuclear imaging agents), in development using the ASP technology. We initiated the initial proof of concept stage (Phase 1) of the Mo-100 development plan in October 2021 and while we expect to complete the proof of concept stage during the second half of 2022, it is possible that the proof of concept stage will take longer than anticipated to complete due to unexpected delays.

We also plan to begin enrichment of uranium, which is a chemical element we believe may have application in the clean, efficient and carbon-free energy industry, using the ASP technology. We are in the planning stage of research and development activities for enriched uranium. If we are unable to advance our future isotopes in development, obtain applicable regulatory approval and ultimately commercialize our future isotopes (assuming receipt of applicable regulatory approvals), or experience significant delays in doing so, our business will be materially harmed.

Our ability to generate product revenues will depend heavily on the success of our research and development activities, receipt of applicable regulatory approvals, and eventual commercialization of our future isotopes (assuming receipt of applicable regulatory approvals and compliance with all applicable regulatory authorities).

The success of our business, including our ability to finance our company and generate any revenue in the future, will primarily depend on the successful development, regulatory approval and commercialization of our currently planned future isotopes, Mo-100 and enriched uranium, which may never occur.

We will have to be successful in a range of challenging activities, including completing research and development activities relating to our ASP technology, obtaining applicable regulatory approval for future isotopes, if any, and manufacturing, marketing and selling any future isotopes (assuming receipt of applicable regulatory approvals). We are only in the preliminary stages of most of these activities. If we are unable to succeed in these activities, we may not be able to generate sufficient revenue to continue our business.

We rely on a limited number of suppliers to provide us components and a material interruption in supply could prevent or limit our ability to execute our strategic plan and development programs in the expected timeframe.

We depend upon a limited number of third-party suppliers located for certain components required to construct the centrifuges and other equipment for the enrichment plant that is being constructed in South Africa. To date, we have been able to obtain the required components for our centrifuges without any significant delays or interruptions, except for certain delays related to COVID-19. If we lose any of these suppliers, we may be required to find and enter into supply arrangements with one or more replacement suppliers. Obtaining alternative sources of supply could involve significant delays and other costs and these supply sources may not be available to us on reasonable terms or at all. Any disruption of supplies could delay completion of the enrichment plant in South Africa, which could adversely affect our ability to execute our strategic plan and development programs in the expected timeframe.

Our business, financial and operating performance could be adversely affected by epidemics and other health related issues including but not limited to the coronavirus disease 2019 ("COVID-19") pandemic.

The global outbreak of COVID-19 has negatively affected global economies, disrupted supply chains, and has resulted in significant travel, transport, and other restrictions. The COVID-19 outbreak has disrupted the supply chains and day-to-day our operations (and the operations of our suppliers and contractors (including Klydon), which could materially adversely affect our operations). In this regard, global supply chains and the timely availability of components imported to South Africa from the United States, countries in Europe or other nations could be materially disrupted by quarantines, slowdowns or shutdowns, border closings, and travel restrictions resulting from the global COVID-19 pandemic or other global pandemic or health crises. Further, impacts of COVID-19 infections and other COVID-19 pandemic related impacts on our management and workforce, or our suppliers and contractors (including Klydon), could adversely impact our business. While we have taken steps to protect our workforce and carry on operations, we may not be able to mitigate all of the potential impacts. We anticipate increased costs related to, or resulting from, the COVID-19 pandemic, due to, among other things, delays in supplier deliveries, impacts of travel restrictions, site access and quarantine requirements.

In the event that the COVID-19 pandemic prevents our employees or our contractors from working in-person at our facility in South Africa or our suppliers are unable to provide goods and services on the schedule we anticipated, the impacts on our schedule and costs could be material. The ultimate impact of the COVID-19 pandemic on our operations, including our ability to execute our strategic plan and development programs in the expected timeframe, remains uncertain and will depend on future pandemic-related developments, including the duration of the pandemic and any potential subsequent variants of COVID-19 and related government actions to prevent and manage disease spread, all of which are uncertain and cannot be predicted. The long-term impacts of the COVID-19 pandemic on us, our contractors and suppliers that could impact our business are also difficult to predict but could adversely affect our business, results of operations, and prospects.

Development activities at our facility in South Africa could be disrupted for a variety of reasons, which could prevent us from completing our development activities.

A disruption in development activities at our facility in South Africa could have a material adverse effect on our business. Disruptions could occur for many reasons, including power outages, fire, natural disasters, weather, unplanned maintenance or other manufacturing problems, public health crises (including, but not limited to, the COVID-19 pandemic), disease, strikes or other labor unrest, transportation interruption, government regulation, political unrest or terrorism. Alternative facilities with sufficient capacity or capabilities may not be available, may cost substantially more or may take a significant time to start production, each of which could negatively affect our business and financial performance.

Risks associated with the in-licensing of the ASP technology for development of Mo-100 or enriched uranium could cause substantial delays in the development of our future isotopes.

Prior to October 2021, as a company we had no involvement with or control over the research and development of the ASP technology. We have relied and continue to rely on Klydon to conduct such research and development in accordance with the applicable legal, regulatory and scientific standards prior to the in-licensing of the ASP technology for development of Mo-100 or U-235. If the research and development processes or the results of the development programs prior to the in-licensing of the ASP technology for development of Mo-100 or U-235 prove to be unreliable, this could result in increased costs and delays in the development of our future isotopes, which could adversely affect any future revenue from these future isotopes (assuming receipt of applicable regulatory approvals).

Regulatory approval for production and distribution of radiopharmaceuticals used for medical imaging and therapeutic treatments may involve a lengthy and expensive process with an uncertain outcome.

Currently, the sale or use of Mo-100 is not regulated by a healthcare regulator, such as the FDA, European Medicines Agency (EMA) or comparable foreign regulatory authorities. However, products such as Mo-99 and Tc-99m that are produced from Mo-100 in a cyclotron or a linear accelerator are regulated by healthcare regulators. We expect radiopharmacies, hospitals, clinics and others in the medical community to produce the widely used medical radioisotope technetium-99m (Tc-99m) from the Mo-100 that we may produce using our ASP technology. Tc-99m is a diagnostic agent that is used by health care professionals with FDA-approved imaging devices to detect potential diseases like coronary artery disease and cancer, as well as evaluating lung, liver, kidney and brain function. When used with the appropriate diagnostic scanner device, such as a SPECT imaging system, the Tc-99m emits signals that are captured and produces an image of internal organs to detect various medical problems and contribute to diagnosis and treatment decisions. Our future customers who may use Mo-100 to produce radiopharmaceuticals will likely require regulatory approval for their products. To date, only one healthcare regulator (Canada) has approved the use of Tc-99m produced from Mo-100 via a cyclotron. Obtaining regulatory approval is expensive and can take many years to complete, and its outcome is inherently uncertain. Our customers' regulatory approval process may not be conducted as planned or completed on schedule, if at all, and failure can occur at any time during the process.

In the future, we may need to obtain approval from the FDA, EMA or comparable foreign regulatory authorities prior to the sale of Mo-100 that we may produce using our ASP technology for use in medical imaging and therapeutic treatments. If we require FDA, EMA or other comparable foreign regulatory authorities to approve the sale of Mo-100 that we may produce using our ASP technology for medical imaging and therapeutic treatments, we must demonstrate the safety and utility or efficacy of our Mo-100. Obtaining regulatory approval is expensive and can take many years to complete, and its outcome is inherently uncertain. Our regulatory approval process may not be conducted as planned or completed on schedule, if at all, and failure can occur at any time during the process.

Our success depends on our future customers' ability to successfully commercialize products that are produced from our isotopes.

Our customers operate in a competitive environment. If our customers are unable to successfully commercialize products that they produce from our isotopes, our business will be negatively impacted. Our customers may fail for a number of reasons including but not limited to pricing pressure from competing products and failure to gain regulatory approval for the production of their products from healthcare regulators.

Our success depends on our ability to adapt to a rapidly changing competitive environment in the nuclear industry.

The nuclear industry in general, and the nuclear fuel industry in particular, is in a period of significant change, which could significantly transform the competitive landscape we face. The uranium and isotope enrichment sector is competitive. Changes in the competitive landscape may adversely affect pricing trends, change customer spending patterns, or create uncertainty. To address these changes, we may seek to adjust our cost structure and efficiency of operations and evaluate opportunities to grow our business organically or through acquisitions and other strategic transactions. We are actively considering, and expect to consider from time to time in the future, potential strategic transactions, which could involve, without limitation, changes in our capital structure, acquisitions and/or dispositions of businesses or assets, joint ventures or investments in businesses, products or technologies.

In connection with any such transaction, we may seek additional debt or equity financing, contribute or dispose of assets, assume additional indebtedness, or partner with other parties to consummate a transaction. Any such transaction may not result in the intended benefits and could involve significant commitments of our financial and other resources. Legal and consulting costs incurred in connection with debt or equity financing transactions in development are deferred and subject to immediate expensing if such a transaction becomes less likely to occur. If the actions we take in response to industry changes are not successful, our business, results of operations and financial condition may be adversely affected.

We may explore strategic collaborations that may never materialize or may fail.

We intend to accelerate the development of our enriched uranium program by selectively collaborating with energy companies in the United States. We intend to retain significant technology, economic and commercial rights to our programs in key geographic areas that are core to our long-term strategy. As a result, we intend to periodically explore a variety of possible additional strategic collaborations in an effort to gain access to additional resources. At the current time, we cannot predict what form such a strategic collaboration might take. We are likely to face significant competition in seeking appropriate strategic collaborators, and strategic collaborations can be complicated and time consuming to negotiate and document. We may not be able to negotiate strategic collaborations on acceptable terms, or at all. We are unable to predict when, if ever, we will enter into any additional strategic collaborations because of the numerous risks and uncertainties associated with establishing them.

If the market opportunities for our future isotopes are smaller than we estimate (even assuming receipt of any required regulatory approval), our business may suffer.

We are currently focused on producing Mo-100 using our ASP technology to meet critical patient healthcare needs and advance clinical research. We also plan to produce enriched uranium to meet the future needs of developers of U.S. advanced reactor technologies requiring HALEU. Our projections of the potential markets are based on estimates that have been derived from a variety of sources, including scientific literature and market research, and which may prove to be incorrect. We must be able to successfully acquire a significant market share in our potential markets to achieve profitability and growth. Customers may become difficult to gain access to, which would adversely affect our results of operations and our business.

We face substantial competition, which may result in others discovering, developing or commercializing isotopes before or more successfully than us.

The development and commercialization of radioisotopes and chemical elements is highly competitive. We face competition with respect to Mo-100 that we may produce using our ASP technology from established biotechnology and nuclear medicine technology companies and will face competition with respect to enriched uranium that we may seek to develop or commercialize in the future from innovative technology and energy companies. There are a number of large biotechnology and nuclear medicine technology companies that currently market and sell radioisotopes to radiopharmacies, hospitals, clinics and others in the medical community (Mo-99 is the active ingredient for Tc-99m-based radiopharmaceuticals used in nuclear medicine procedures). There are also a number of technology and energy companies that are currently seeking to develop HALEU. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

More established companies may have a competitive advantage over us due to their greater size, resources and institutional experience. In particular, these companies have greater experience and expertise in securing reimbursement, government contracts, relationships with key opinion leaders, obtaining and maintaining regulatory approvals and distribution relationships to market products. These companies also have significantly greater research and marketing capabilities than we do. If we are not able to compete effectively against existing and potential competitors, our business and financial condition may be harmed.

As a result of these factors, our competitors may complete development of isotopes before we are able to, which may limit our ability to develop or commercialize our future isotopes. Our competitors may also develop radioisotopes or technologies that are safer, more effective, more widely accepted and cheaper than ours, and may

also be more successful than us in manufacturing and marketing their isotopes. These appreciable advantages could render our future isotopes obsolete or non-competitive before we can recover the expenses of their development and commercialization.

Mergers and acquisitions in the technology and energy industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific, management and commercial personnel, as well as in acquiring technologies complementary to, or necessary for, our programs.

Even if the products that we or our customers may produce using the ASP technology receives regulatory approval, it may fail to achieve market acceptance by radiopharmacies, hospitals, clinics or others in the medical community necessary for commercial success.

Even if the Mo-100 that we may produce using the ASP technology, or Tc-99m or Mo-99 that we expect our future customers to produce using the Mo-100 that we plan to offer, receives regulatory approval, the isotopes may fail to gain sufficient market acceptance by radiopharmacies, hospitals, clinics and others in the medical community. If it does not achieve an adequate level of acceptance, we may not generate significant product revenue and may not become profitable. The degree of market acceptance of Mo-100 that we may produce using the ASP technology, or the Tc-99m or Mo-99 that our future customers may produce, will depend on a number of factors, including but not limited to:

- the potential advantages compared to alternative radioisotopes;
- the timing of market introduction of the product as well as competitive products;
- effectiveness of sales and marketing efforts;
- the strength of our relationships with radiopharmacies, hospitals, clinics and others in the medical community;
- the cost in relation to alternative radioisotopes;
- our ability to offer Mo-100 that we may produce using the ASP technology for sale at competitive prices;
- the convenience and ease of use compared to alternative radioisotopes;
- the willingness of radiopharmacies, hospitals, clinics and others in the medical community to try an innovative radioisotope; and
- the strength of marketing and distribution support;

Our efforts to educate radiopharmacies, hospitals, clinics and others in the medical community on the benefits of Mo-100 that we may produce using the ASP technology may require significant resources and may never be successful.

Because we expect sales of Mo-100 that we may produce using the ASP technology (assuming receipt of applicable regulatory approvals for commercial sale) to generate substantially all of our revenues for the foreseeable future, the failure of Mo-100 that we may produce using the ASP technology (assuming receipt of applicable regulatory approvals for commercial sale) to find market acceptance would harm our business and could require us to seek additional financing.

We currently have no marketing and sales organization and have no experience as a company in commercializing products, and we may have to invest significant resources to develop these capabilities. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our products, we may not be able to generate product revenue.

We have no internal sales, marketing or distribution capabilities, nor have we commercialized a product. If the Mo-100 that we may produce using our ASP technology gains market acceptance and our customers receive regulatory approval for the isotopes they produce, we must build a marketing and sales organization with technical

expertise and supporting distribution capabilities to commercialize such product in the markets that we target, which will be expensive and time consuming, or collaborate with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems. We currently plan to independently commercialize the Mo-100 that we may produce using our ASP technology (assuming receipt of applicable regulatory approvals) in the United States by establishing a focused sales force and marketing infrastructure. We may opportunistically seek additional strategic collaborations to maximize the commercial opportunities for our medical isotopes business outside of the United States. We have no prior experience as a company in the marketing, sale and distribution of isotopes and there are significant risks involved in building and managing a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. We may not be able to enter into collaborations or hire consultants or external service providers to assist us in sales, marketing and distribution functions on acceptable financial terms, or at all. In addition, our product revenues and our profitability, if any, may be lower if we rely on third parties for these functions than if we were to market, sell and distribute any products that we develop ourselves. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we are not successful in commercializing our isotopes, either on our own or through arrangements with one or more third parties, we may not be able to generate any future product revenue and we would incur significant additional losses.

Obtaining regulatory approval for either the Mo-100 that we may produce using the ASP technology, or the Tc-99m or Mo-99 that our future customers may produce using the Mo-100 that we plan to offer, in one jurisdiction does not mean that we or they will be successful in obtaining regulatory approval of such future products in other jurisdictions.

Currently, the production and distribution of Mo-100 does not require any regulatory licenses from healthcare regulators. Healthcare regulators frequently change such requirements, and it is possible that in the future Mo-100 may be regulated as a healthcare product. Obtaining such regulatory licenses, if required, may be a timely and costly process and could materially impact our ability to commercialize the Mo-100 that we plan to offer. Obtaining regulatory approval of the Mo-100 that we may produce using the ASP technology in one jurisdiction does not guarantee that we will be able to obtain regulatory approval in any other jurisdiction. For example, even if the FDA grants regulatory approval of the Mo-100 that we may produce using the ASP technology, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion and reimbursement of such future product in those countries. However, a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from those in the United States.

Obtaining foreign regulatory approvals and establishing and maintaining compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of the Mo-100 that we may produce using the ASP technology. Products such as Tc-99m and Mo-99 that may be produced by our future customers using the Mo-100 that we plan to offer will likely require regulatory licenses in most regions. Healthcare regulators frequently change such requirements and it is unclear what each healthcare regulator will require. To date, only one region (Canada) has approved the use of Tc-99m that has been produced from Mo-100 in a cyclotron. Obtaining such regulatory licenses, if required, may be a timely and costly process and could materially impact the ability of our future customers to operate and use the Mo-100 that we plan to offer. Obtaining regulatory approval in one jurisdiction does not guarantee that we or they will be able to obtain regulatory approval in any other jurisdiction.

If we or any future collaborator fail to comply with the regulatory requirements in international markets or fail to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of the Mo-100 that we may produce using the ASP technology will be harmed.

Product liability lawsuits against us could cause us to incur substantial liabilities and could limit commercialization of any isotopes that we may develop.

We face an inherent risk of product liability exposure if we commercialize any isotopes that we may develop. If we cannot successfully defend ourselves against claims that any such isotopes caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any isotopes that we may develop;
- loss of revenue;
- substantial monetary awards to patients;
- significant time and costs to defend the related litigation;
- a diversion of management's time and our resources;
- initiation of investigations by regulators;
- the inability to commercialize any isotopes that we may develop;
- injury to our reputation and significant negative media attention; and
- a decline in our share price.

Any product liability insurance coverage that we obtain and maintain may not be adequate to cover all liabilities that we may incur. We anticipate that we will need to increase our insurance coverage each time we commence a clinical trial and if we successfully commercialize any isotopes. Insurance coverage is increasingly expensive. We may not be able to obtain or maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Risks Related to Regulatory Compliance

Our business is and could become subject to a wide variety of extensive and evolving laws and regulations. Failure to comply with such laws and regulations and failure to obtain licenses, approvals and permits that may be required to execute on our strategy and develop our company's business could have a material adverse effect on our business.

We are subject to a wide variety of laws and regulations relating to various aspects of our business, including with respect to the development of the ASP technology and our future isotopes, employment and labor, health care, tax, privacy and data security, health and safety, and environmental issues. Laws and regulations at the South African and foreign, federal, state and local levels frequently change, especially in relation to new and emerging industries, and we cannot always reasonably predict the impact of, or the ultimate cost of compliance with, current or future regulatory or administrative changes. In South Africa, our Mo-100 enrichment facility is heavily regulated. South Africa is a signatory to the International Atomic Energy Agency ("IAEA") conventions and has adopted safety standards from the IAEA. The design, construction and operation of the Mo-100 enrichment plant are highly regulated and require government licenses, approvals and permits, and may be subject to the imposition of conditions. In some cases, these licenses, approvals and permits entail periodic review and inspections. While we and Klydon have received all licenses, approvals and permits required to build and operate our Mo-100 enrichment facility in South Africa, we cannot predict whether the conditions associated with such licenses, approvals and permits will be maintained. For example, each of Klydon and ASP Isotopes South Africa (Proprietary) Limited has received from the South African Council for The Non-Proliferation of Weapons of Mass Destruction (1) a registration certificate (which are valid for two years from the date of issuance) and (2) a Manufacturing and Services Permit. The permits provide that the Non-Proliferation Secretariat will conduct at least two industry visits in June and November (or as arranged) of every year. Each of the permits includes numerous conditions, including, for example, the obligation to keep the Council updated or informed on all separation projects at all times and at least through biannual declarations, which must be done through correspondence to the Council at

the end of April and September every year. The permit issued to ASP Isotopes South Africa (Proprietary) Limited includes additional specific information requirements related to (i) the progress on the design and construction of the Mo-100 separation plant, (ii) the progress on the manufacturing of Molybdenum separation elements, and (iii) the commissioning of the plant. Each of the permits further provides that (i) any potential export of controlled goods and technology should be requested at an early stage through a Provisional Export Guidance Request, (ii) all isotope separation applications remain controlled regardless of the isotope atomic mass and will be dealt with on a case-by-case basis, and (iii) any ultimate transfer of these controlled goods and technology will be subject to the issuance of a permit by the Council as required in terms of the Non-Proliferation Act and related Government Notices and Regulations.

In addition, we cannot assure you that we will be able to obtain, on a timely basis or at all, any additional licenses, approvals and permits that may be required to execute on our strategy and develop our company's business, including any such licenses, approvals and permits that may be required to introduce Mo-100 produced using ASP technology into the market and to begin the enrichment of uranium to demonstrate our capability to produce HALEU using the ASP technology.

Changes in law or the imposition of new or additional regulations or permit requirements that impact our business could negatively impact our performance in various ways, including by limiting our ability to collaborate with partners or customers or by increasing our costs and the time necessary to obtain required authorization. We monitor new developments and devote a significant amount of management's time and external resources to compliance with these laws and regulations. We cannot assure you, however, that we are and will remain in compliance with all such requirements and, even when we believe we are in compliance, a regulatory agency may determine that we are not. In addition, we cannot assure you that we will be obtain all licenses, approvals and permits that may be required to execute on our strategy and develop our company's business as currently contemplated. Failure by us, our employees, affiliates, partners or others with whom we work to comply with applicable laws and regulations or to obtain or comply with necessary licenses, approvals and permits could result in administrative, civil, commercial or criminal liabilities, including suspension or debarment from government contracts or suspension of our export/import privileges. Failure by us, our employees, affiliates, partners or others with whom we work to comply with the permits issued to us by the South African Council for The Non-Proliferation of Weapons of Mass Destruction could result in disruption of our development activities at our facility in South Africa, which could prevent us from completing our development activities.

If technology developed for the purposes of enriching isotopes can be applied to the creation or development of weapons-grade materials, then our technology may be considered "dual use" technology and be subject to limitations on public disclosure or export.

Our research and development of isotope enrichment is dedicated not only to producing Mo-100 for use in nuclear medical diagnostic procedures and concentrating uranium in the isotope uranium-235 for use in nuclear energy, but also to safeguarding any information with broad, dual-use potential that could be inappropriately applied. Enrichment is among the most sensitive nuclear technologies because it can produce weapon-grade materials. The ASP technology may be considered dual use and could be subject to export control, for example under the Wassenaar Arrangement.

Risks Related to Our Intellectual Property

Our intellectual property is not protected through patents or formal copyright registration. As a result, we do not have the full benefit of patent or copyright laws to prevent others from replicating the ASP technology.

Neither we nor Klydon have yet protected our respective intellectual property rights through patents or formal copyright registration, and neither we nor Klydon currently have any patent applications pending. To date, we and Klydon have relied exclusively on trade secrets and other intellectual property laws, non-disclosure agreements with our respective employees, consultants, vendors, potential customers and other relevant persons and other measures to protect our intellectual property, and intend to continue to rely on these and other means. As we intend to transition into the commercialization of Mo-100, we envision our intellectual property and its security becoming more vital to our future. Until we protect our intellectual property through patent, trademarks and registered copyrights, we may not be able to protect our intellectual property and trade secrets or prevent others from independently developing

substantially equivalent proprietary information and techniques or from otherwise gaining access to our intellectual property or trade secrets. In such an instance, our competitors could produce products that are nearly identical to ours resulting in us selling less products or generating less revenue from our sales.

We may be unable to adequately protect our intellectual property and proprietary rights and prevent others from making unauthorized use of our products and technology.

Our success and competitiveness depend, in significant part, on our ability to protect our intellectual property rights, including the ASP technology and certain other practices, tools, technologies and technical expertise we utilize in designing, developing, implementing and maintaining processes used in the development of our future isotopes. To date, we and Klydon have relied exclusively on trade secrets and other intellectual property laws, non-disclosure agreements with our respective employees, consultants, vendors, potential customers and other relevant persons and other measures to protect our intellectual property, and intend to continue to rely on these and other means.

For strategic reasons, neither we nor Klydon have yet protected our intellectual property by filing patent applications related to our technology, inventions and improvements. Even if we or Klydon filed patent applications and patents were granted, we cannot assure you we would be fully protected against third parties as those patents may not be sufficiently broad in their coverage, may not be economically significant, or may not provide us with any competitive advantage. Competitors may be able to design around any patents and develop isotope production techniques comparable or superior to the ASP technology. Furthermore, the filing of a patent would entail the disclosure of our know-how, and breaches of patent rights related to a wrongful use of this know-how would be difficult to enforce in the international landscape. We believe that our intellectual property strategy differs significantly from the strategies of others involved in the medical isotope industry, many of whom have extensive patent portfolios and rely heavily on intellectual property registrations to enforce their intellectual property rights. As a result of this discrepancy in strategy, we may be at a competitive disadvantage with respect to the strength of our intellectual property protection. Unlike others involved in the medical isotope industry, who generally have patents providing exclusive control over their innovations, we have no recourse against any entity that independently creates the same technology as ours or legitimately reverse-engineers our technology.

We generally enter into non-disclosure agreements with our employees, consultants and other parties with whom we have strategic relationships and business alliances. We cannot, however, assure you that these agreements will be effective in controlling access to and distribution of our technology and proprietary information. Since we do not protect our intellectual property by filing patent applications, we rely on our personnel to protect our trade secrets, know-how and other proprietary information to a greater degree than we would if we had patent protection for our intellectual property. In any jurisdiction in which our research and development is not protected by similar agreements, there is no protection against the manufacture and marketing of identical or comparable research and development by third parties, who are generally free to use, independently develop, and sell our developments and technologies without paying license or royalty fees. Furthermore, our former employees may perform work for our competitors and use our know-how in performing this work. In the event we scale our business by hiring additional personnel and entering into contracts with third parties, the risks associated with breaches of non-disclosure agreements, confidentiality agreements and other agreements pertaining to our technology and proprietary information will increase, and such breaches could have an adverse effect on our business and competitive position.

We may come to believe that third parties are infringing on, or otherwise violating, our intellectual property or other proprietary rights. To prevent infringement or unauthorized use, we may need to file infringement and/or misappropriation suits, which are expensive and time-consuming, could result in meritorious counterclaims against us and would distract management's attention. In addition, in an infringement or misappropriation proceeding, a court may decide that one or more of our intellectual property rights is invalid, unenforceable, or both, in which case third parties may be able to use our technology without paying license fees or royalties. If we are unable to protect our intellectual property and proprietary rights, we may be unable to prevent competitors from using our own inventions and intellectual property to compete against us, and our business may be harmed.

We depend on intellectual property licensed from Klydon, the termination of which could result in the loss of significant rights, which would harm our business.

We are dependent on technology, know-how, and proprietary materials licensed from Klydon. We have an exclusive license from Klydon to use, develop, modify, improve, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the production, distribution, marketing and sale of all isotopes produced using the ASP technology (the "Klydon license agreement"). The Klydon license agreement is royalty-free, has a term of 999 years and the license is worldwide for the development of the ASP technology and the distribution, marketing and sale of isotopes. Future production of isotopes is limited to member countries of the Nuclear Suppliers Group. Klydon has the right to terminate the exclusivity of the Klydon license agreement in the event that the licensee ceases to carry on activities related to isotope enrichment for a period longer than 24 consecutive months. Any termination of exclusivity under the Klydon license agreement will result in the loss of significant rights and will restrict our ability to develop and commercialize our planned isotopes. See the section of this prospectus entitled "Certain Relationships and Related Party Transactions — Our Relationship with Klydon Proprietary Limited — Omnibus Klydon License" for a description of the Klydon license agreement, which includes a description of the exclusivity termination provision. If we or Klydon fails to adequately protect this intellectual property, our ability to commercialize the isotopes, such as Mo-100 or uranium, that we may produce using ASP technology could suffer.

In addition, agreements under which we license intellectual property or technology to or from third parties may be complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected future isotopes. Our business also would suffer if our licensor fails to abide by the terms of the license, or if we are unable to enter into necessary licenses on acceptable terms. Moreover, our licensor may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights.

Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues and is complicated by the rapid pace of scientific discovery in our industry. Disputes may also arise between us and our licensors regarding intellectual property subject to a license agreement, including those relating to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the license agreement;
- our right to sublicense rights to third parties under collaborative development relationships;
- whether we are complying with our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our future isotopes, and what activities satisfy those diligence obligations;
- the priority of invention of patented technology;
- the amount and timing of payments owed under license agreements; and
- the allocation of ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensor and by us and our partners.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected future isotopes. We are generally also subject to all of the same risks with respect to protection of intellectual property that we license as we are for intellectual property that we own, which are described below. If we or our licensor fail to adequately protect this intellectual property, our ability to commercialize our future isotopes could suffer.

We may enter into collaboration agreements and strategic alliances, and we may not realize the anticipated benefits of such collaborations or alliances.

We may wish to form collaborations in the future with respect to our future isotopes, but may not be able to do so or to realize the potential benefits of such transactions, which may cause us to alter or delay our development and commercialization plans. Research and development collaborations are subject to numerous risks, which may include the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a collaboration, and may not commit sufficient efforts and resources, or may misapply those efforts and resources;
- collaborators may not pursue development and commercialization of future isotopes or may elect not to continue or renew development or commercialization programs;
- collaborators may delay, provide insufficient resources to, or modify or stop development activities for future isotopes;
- collaborators could develop or acquire products outside of the collaboration that compete directly or indirectly with our future isotopes;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our future isotopes, or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated and, if terminated, may result in a need for additional capital and personnel to pursue further development or commercialization of the applicable future isotopes; and
- collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we may not have the exclusive right to commercialize such intellectual property.

The development and potential commercialization of our future isotopes will require substantial additional capital to fund expenses. We may form or seek further strategic alliances, create joint ventures or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to our future isotopes, including in territories outside the United States or for certain indications. These transactions can entail numerous operational and financial risks, including exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to manage a collaboration or develop acquired products or technologies, incurrence of substantial debt or dilutive issuances of equity securities to pay transaction consideration or costs, higher than expected collaboration, acquisition or integration costs, write-downs of assets or goodwill or impairment charges, increased amortization expenses, difficulty and cost in facilitating the collaboration or combining the operations and personnel of any acquired business, impairment of relationships with key suppliers, manufacturers or customers of any acquired business due to changes in management and ownership and the inability to retain key employees of any acquired business. As a result, if we enter into acquisition or in-license agreements or strategic partnerships, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, or if there are materially adverse impacts on our or the counterparty's operations resulting from COVID-19, which could delay our timelines or otherwise adversely affect our business. We also cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction or such other benefits that led us to enter into the arrangement.

In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. We may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our future isotopes because they may be deemed to be at too early of a stage

of development for collaborative effort and third parties may not view our future isotopes as having the requisite potential to demonstrate safety and efficacy. If and when we collaborate with a third-party for development and commercialization of a future isotope, we can expect to relinquish some or all of the control over the future success of that future isotope to the third-party. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of our technologies, future isotopes and market opportunities. The collaborator may also consider alternative isotopes or technologies for similar applications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our future isotope. We may also be restricted under any license agreements from entering into agreements on certain terms or at all with potential collaborators.

As a result of these risks, we may not be able to realize the benefit of our existing collaborations or any future collaborations or licensing agreements we may enter into. In addition, we may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of such future isotope, reduce or delay one or more of our other development programs, delay the potential commercialization or reduce the scope of any planned sales or marketing activities for such future isotope, or increase our expenditures and undertake development, manufacturing or commercialization activities at our own expense. If we elect to increase our expenditures to fund development, manufacturing or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our future isotopes or bring them to market and generate product revenue.

We may be dependent on intellectual property licensed or sublicensed to us from, or for which development was funded or otherwise assisted by, government agencies, for development of our technology and future isotopes. Failure to meet our own obligations to our licensor or upstream licensors, including such government agencies, may result in the loss of our rights to such intellectual property, which could harm our business.

Government agencies may provide funding, facilities, personnel or other assistance in connection with the development of the intellectual property rights owned by or licensed to us. Such government agencies may have retained rights in such intellectual property, including the right to grant or require us to grant mandatory licenses or sublicenses to such intellectual property to third parties under certain specified circumstances, including if it is necessary to meet health and safety needs that we are not reasonably satisfying or if it is necessary to meet requirements for public use specified by federal regulations, or to manufacture products in the United States. Any exercise of such rights, including with respect to any such required sublicense of these licenses could result in the loss of significant rights and could harm our ability to commercialize licensed products.

If we are unable to obtain patent protection for our future isotopes, or if the scope of the patent protection obtained is not sufficiently broad, we may not be able to compete effectively in our markets.

We anticipate that Klydon will file patent applications both in the United States and in other countries, as appropriate. However, we cannot predict:

- if and when any patents will issue;
- the degree and scope of protection any issued patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- whether others will apply for or obtain patents claiming aspects similar to those covered by our patents and patent applications;
- whether we will need to initiate litigation or administrative proceedings to defend our patent rights, which may be costly whether we win or lose; or
- whether the patent applications that we own, or in-license will result in issued patents with claims that cover our future isotopes or uses thereof in the United States or in foreign countries.

We currently rely upon a combination of trade secret protection and confidentiality agreements to protect the intellectual property related to our isotope development techniques and future isotopes. Our success will depend in large part on our (or Klydon, as our licensor) ability to obtain and maintain patent protection in the United States

and other countries with respect to the ASP technology. We expect Klydon to seek to protect its proprietary position by filing patent applications in the United States and abroad related to its current and future development programs and future isotopes to the extent permitted by applicable law. Our exclusive license agreement with Klydon provides that additional patents, knowhow and improvements in the ASP technology that may be developed in the future will be considered part of the intellectual property rights granted under the license. The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner, including as a result of the COVID-19 pandemic impacting our or our licensors' operations.

It is possible that we (or Klydon, as our licensor) will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our future isotopes in the United States or in foreign countries. There is no assurance that all of the potentially relevant prior art relating to our (or Klydon's) patents and patent applications has been found, which can invalidate a patent or prevent a patent from issuing from a pending patent application. Even if patents do successfully issue and even if such patents cover the ASP technology, third parties may challenge their scope, validity, or enforceability, which may result in such patents being narrowed, invalidated, or held unenforceable. Any successful opposition to these patents or any other patents owned by or licensed to us could deprive us of rights necessary for the successful commercialization of any future isotopes using the ASP technology. Further, if we encounter delays in regulatory approvals, the period of time during which we could market a future isotope could be reduced.

If the patent applications we hold or have in-licensed with respect to our development programs fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for the ASP technology, it could dissuade companies from collaborating with us, and threaten our ability to commercialize, isotopes produced using the ASP technology. Any such outcome could have a negative effect on our business.

Even if we obtain patents covering the ASP technology or our methods, we may still be barred from making, using and selling such technology or methods because of the patent rights of others. Others may have filed, and in the future may file, patent applications covering technology or methods that are similar or identical to ours, which could materially affect our ability to successfully develop our technology or to successfully commercialize any isotopes alone or with collaborators.

Patent applications in the United States and elsewhere are generally published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our platform technologies and methods could have been filed by others without our knowledge. Additionally, pending claims in patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our platform technologies. These patent applications may have priority over patent applications filed by us.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and/or applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our owned and licensed patents and/or applications and any patent rights we may own or license in the future. We will rely on our outside counsel, patent annuity service providers, or our licensing partners to pay these fees due to non-U.S. patent agencies. The USPTO and various non-U.S. government patent agencies require compliance with several procedural, documentary, and other similar provisions during the patent application process. We will employ reputable law firms and other professionals to help us comply and we will also be dependent on Klydon (as our licensor) to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market and this circumstance could harm our business.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a negative impact on the success of our business.

Our commercial success depends, in part, upon our ability and the ability of our current or future collaborators to develop, manufacture, market and sell our future isotopes and use our proprietary technologies without infringing the proprietary rights and intellectual property of third parties. The technology industry is characterized by extensive and complex litigation regarding patents and other intellectual property rights. Our future isotopes and other proprietary technologies we may develop may infringe existing or future patents owned by third parties. We may in the future become party to, or be threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our future isotopes and technology, including interference proceedings, post grant review and inter partes review before the USPTO. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of their merit. There is a risk that third parties may choose to engage in litigation with us to enforce or to otherwise assert their patent rights against us. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that these third-party patents are valid, enforceable and infringed, which could have a negative impact on our ability to commercialize our future isotopes. In order to successfully challenge the validity of any such U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. If we are found to infringe a third party's valid and enforceable intellectual property rights, we could be required to obtain a license from such third party to continue developing, manufacturing and marketing our future isotope(s) and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments. We could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technology or future isotope. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right. A finding of infringement could prevent us from manufacturing and commercializing our future isotopes or force us to cease some or all of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business, financial condition, results of operations and prospects.

Third parties asserting their patent or other intellectual property rights against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our future isotopes or force us to cease some of our business operations. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, cause development delays, and may impact our reputation. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties, or redesign our infringing products, which may be impossible on a cost-effective basis or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our future isotopes, which could harm our business significantly. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

We may be subject to claims asserting that our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.

Certain of our employees, consultants or advisors are currently, or were previously, employed at universities or other technology companies, including Klydon. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that these individuals or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property.

Reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

If we rely on third parties to manufacture or commercialize our future isotopes, or if we collaborate with additional third parties for the development of our future isotopes, we must, at times, share trade secrets with them. We may also conduct joint research and development programs that may require us to share trade secrets under the terms of our research and development partnerships or similar agreements. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, services agreements, consulting agreements or other similar agreements with our advisors, employees, third-party contractors and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, including our trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure could have an adverse effect on our business and results of operations.

In addition, these agreements typically restrict the ability of our advisors, employees, third-party contractors and consultants to publish data potentially relating to our trade secrets. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets, either through breach of our agreements with third parties, independent development or publication of information by any third-party collaborators. A competitor's discovery of our trade secrets could harm our business.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to the protection afforded by patents, we seek to rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce, and any other elements of our future isotopes, technology and product discovery and development processes that involve proprietary know-how, information, or technology that is not covered by patents. Any disclosure, either intentional or unintentional, by our employees, the employees of third parties with whom we share our facilities or third-party consultants and vendors that we engage, or misappropriation by third parties (such as through a cybersecurity breach) of our trade secrets or proprietary information could enable competitors to duplicate or surpass our technological achievements, thus eroding our competitive position in our market. Because we expect to rely on third parties in the development and manufacture of our future isotopes, we must, at times, share trade secrets with them. Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

Trade secrets and confidential information, however, may be difficult to protect. We seek to protect our trade secrets, know-how and confidential information, including our proprietary processes, in part, by entering into confidentiality agreements with our employees, consultants, outside scientific advisors, contractors, and collaborators. With our consultants, contractors, and outside scientific collaborators, these agreements typically include invention assignment obligations. We cannot guarantee that we have entered into such agreements with each party that may have or has had access to our trade secrets or proprietary technology and processes. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, outside scientific advisors, contractors, and collaborators might intentionally or inadvertently disclose our trade secret information to competitors. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate

remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third-party, we would have no right to prevent them from using that technology or information to compete with us. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, or misappropriation of our intellectual property by third parties, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results, and financial condition.

Risks Related to Our Dependence on Third Parties

Klydon currently performs or supports many of our operating activities and will continue to do so after the closing of this offering pursuant to a turnkey contract, and if we are unable to replicate or replace these functions if this services agreement is terminated, our operations could be adversely affected.

In November 2021, we entered into a turnkey contract with Klydon (Turnkey Contract). Under this agreement, Klydon has been appointed to supply to ASP Isotopes South Africa (Proprietary) Limited a complete turnkey Molybdenum-100 enrichment plant. The activities to be undertaken or performed by Klydon include: taking control of the assets acquired by us in the Molybdos Business Rescue Auction; the design of a Molybdenum-100 enrichment facility with target manufacturing capability of 20 Kg p.a of 95% and above enriched Molybdenum isotope; the supply of components, equipment and labor required for 20 Kg p.a.; the installation, testing and commissioning of the Molybdenum enrichment plant, including production of targets to be used by customers in cyclotrons; securing all required approvals, regulatory authorizations and other required consents for the operation of the plant; providing training to local ASP Isotopes South Africa (Proprietary) Limited personnel to enable them to operate the plant going forward; and providing warranties in relation to the performance targets of the plant which are required to be met. Klydon will be responsible for liaising with the relevant South African authorities including the South African Non Proliferation Council, the Nuclear Suppliers Group and International Atomic Energy Agency to ensure that the Turnkey Contract and the Molybdenum-100 enrichment plant are compliant with international laws and guidelines. Because our company does not yet have sufficient internal capabilities to perform these functions, we are substantially dependent on the Turnkey Contract for the operation of our company.

If Klydon fails to perform its obligations under the Turnkey Contract, we would be required to build and develop our internal capabilities more quickly than anticipated, and it is possible that we will not be able to do so within the time needed to operate our business effectively.

If we use hazardous and chemical materials in a manner that causes injury or violates applicable law, we may be liable for damages.

Our research and development activities involve the controlled use of potentially hazardous substances, including chemical materials. Klydon is subject to international and local laws and regulations in South Africa governing the use, manufacture, storage, handling and disposal of radioactive and hazardous materials. Although we believe that Klydon's procedures for using, handling, storing and disposing of these materials comply with legally prescribed standards, we cannot completely eliminate the risk of contamination or injury resulting from radioactive or hazardous materials. As a result of any such contamination or injury, we may incur liability or local, city, state or federal authorities may curtail the use of these materials and interrupt our business operations. In the event of an accident, we could be held liable for damages or penalized with fines, and the liability could exceed our resources. We do not have any insurance for liabilities arising from radioactive or hazardous materials. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development, and production efforts, which could harm our business, prospects, financial condition, or results of operations.

Risks Related to Our Business Operations, Employee Matters and Managing Growth

We are highly dependent on the services of our senior management team and if we are not able to retain these members of our management team and recruit and retain additional management, clinical and scientific personnel, our business will be harmed.

We are highly dependent on our senior management team. The employment agreements we have with these officers do not prevent such persons from terminating their employment with us at any time. The loss of the services of any of these persons could impede the achievement of our research, development and commercialization objectives.

In addition, we will need to attract, retain and motivate highly qualified additional management and scientific personnel. If we are not able to retain our management and to attract, on acceptable terms, additional qualified personnel necessary for the continued development of our business, we may not be able to sustain our operations or grow.

We may not be able to attract or retain qualified personnel in the future due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses. Many of the other pharmaceutical companies that we compete against for qualified personnel and consultants have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates and consultants than what we have to offer. If we are unable to continue to attract, retain and motivate high-quality personnel and consultants to accomplish our business objectives, the rate and success at which we can develop future isotopes and our business will be limited and we may experience constraints on our development objectives.

Our future performance will also depend, in part, on our ability to successfully integrate newly hired executive officers into our management team and our ability to develop an effective working relationship among senior management. Our failure to integrate these individuals and create effective working relationships among them and other members of management could result in inefficiencies in the development and commercialization of our future isotopes, harming future regulatory approvals, sales of our future isotopes and our results of operations. Additionally, we do not currently maintain "key person" life insurance on the lives of our executives or any of our employees.

We will need to expand our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.

As of September 30, 2022, we had four full-time employees. We currently operate as a virtual company and rely on service providers for certain general administrative, financial, accounting, tax, intellectual property and other legal services, and we will need to expand our organization to hire qualified personnel to perform these functions internally. Our management may need to divert significant attention and time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, operational inefficiencies, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of our future isotopes. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and grow revenue could be reduced and we may not be able to implement our business strategy. Our future financial performance, our ability to commercialize future isotopes, develop a scalable infrastructure and compete effectively will depend, in part, on our ability to effectively manage any future growth.

Our employees, consultants and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees, consultants and commercial partners. Misconduct by these parties could include intentional failures to comply with FDA regulations or the regulations applicable in other jurisdictions, provide accurate information to the FDA and other regulatory authorities, report financial information or data accurately or disclose unauthorized activities to us. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity

may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from government investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could have a negative impact on our business, financial condition, results of operations and prospects, including the imposition of significant fines or other sanctions.

Significant disruptions of our information technology systems or data security incidents could result in significant financial, legal, regulatory, business and reputational harm to us.

We are dependent on information technology systems and infrastructure, including mobile technologies, to operate our business. In the ordinary course of our business, we collect, store, process and transmit large amounts of sensitive information, including intellectual property, proprietary business information, personal information and other confidential information. It is critical that we do so in a secure manner to maintain the confidentiality, integrity and availability of such sensitive information. We have also outsourced elements of our operations (including elements of our information technology infrastructure) to third parties, and as a result, we manage a number of third-party vendors who may or could have access to our computer networks or our confidential information. In addition, many of those third parties in turn subcontract or outsource some of their responsibilities to third parties. While all information technology operations are inherently vulnerable to inadvertent or intentional security breaches, incidents, attacks and exposures, the accessibility and distributed nature of our information technology systems, and the sensitive information stored on those systems, make such systems potentially vulnerable to unintentional or malicious, internal and external attacks on our technology environment. In addition, all of our employees work remotely, which may make us more vulnerable to cyberattacks. Potential vulnerabilities can be exploited from inadvertent or intentional actions of our employees, third-party vendors, business partners, or by malicious third parties. Attacks of this nature are increasing in their frequency, levels of persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives (including, but not limited to, industrial espionage) and expertise, including organized criminal groups, “hacktivists,” nation states and others. In addition to the extraction of sensitive information, such attacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information. In addition, the prevalent use of mobile devices increases the risk of data security incidents.

Significant disruptions of our, our third-party vendors’ and/or our business partners’ information technology systems or other similar data security incidents could adversely affect our business operations and/or result in the loss, misappropriation, and/or unauthorized access, use or disclosure of, or the prevention of access to, sensitive information, which could result in financial, legal, regulatory, business and reputational harm to us. In addition, information technology system disruptions, whether from attacks on our technology environment or from computer viruses, natural disasters, terrorism, war and telecommunication and electrical failures, could result in a material disruption of our development programs and our business operations. Additionally, theft of our intellectual property or proprietary business information could require substantial expenditures to remedy. If we or our third-party collaborators, consultants, contractors, suppliers, or service providers were to suffer an attack or breach, for example, that resulted in the unauthorized access to or use or disclosure of personal or health information, we may have to notify consumers, partners, collaborators, government authorities, and the media, and may be subject to investigations, civil penalties, administrative and enforcement actions, and litigation, any of which could harm our business and reputation.

There is no way of knowing with certainty whether we have experienced any data security incidents that have not been discovered. While we have no reason to believe this to be the case, attackers have become very sophisticated in the way they conceal access to systems, and many companies that have been attacked are not aware that they have been attacked. Any event that leads to unauthorized access, use or disclosure of personal information, including but not limited to personal information regarding our patients or employees, could disrupt our business, harm our reputation, compel us to comply with applicable federal and/or state breach notification laws and foreign law equivalents, subject us to time consuming, distracting and expensive litigation, regulatory investigation and oversight, mandatory corrective action, require us to verify the correctness of database contents, or otherwise subject us to liability under laws, regulations and contractual obligations, including those that protect the privacy and security of personal information. This could result in increased costs to us, and result in significant legal and

financial exposure and/or reputational harm. In addition, any failure or perceived failure by us or our vendors or business partners to comply with our privacy, confidentiality or data security-related legal or other obligations to third parties, or any further security incidents or other inappropriate access events that result in the unauthorized access, release or transfer of sensitive information, which could include personally identifiable information, may result in governmental investigations, enforcement actions, regulatory fines, litigation, or public statements against us by advocacy groups or others, and could cause third parties, including clinical sites, regulators or current and potential partners, to lose trust in us or we could be subject to claims by third parties that we have breached our privacy- or confidentiality-related obligations, which could materially and adversely affect our business and prospects. Moreover, data security incidents and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above. While we have implemented security measures intended to protect our information technology systems and infrastructure, there can be no assurance that such measures will successfully prevent service interruptions or security incidents.

Our international operations subject us to risks of doing business in foreign countries, which could adversely affect our business, financial condition and results of operations.

Our primary operations are located outside the U.S. (primarily the construction of the isotope enrichment plant in South Africa) and we plan to sell our isotopes to customers outside the U.S. Accordingly, our business is subject to risks related to the differing legal, political, social and regulatory requirements and economic conditions of non-U.S. jurisdictions. Risks inherent in international operations include the following:

- fluctuations in foreign currency exchange rates may affect product demand and may adversely affect the profitability in U.S. dollars of products and services we provide in international markets where payment for our products and services is made in the local currency;
- transportation and other shipping costs may increase, or transportation may be inhibited;
- increased cost or decreased availability of raw materials;
- changes in foreign laws and tax rates or U.S. laws and tax rates with respect to foreign income may unexpectedly increase the rate at which our income is taxed, impose new and additional taxes on remittances, repatriation or other payments by subsidiaries, or cause the loss of previously recorded tax benefits;
- foreign countries in which we do business may adopt other restrictions on foreign trade or investment, including currency exchange controls;
- trade sanctions by or against these countries could result in our losing access to customers and suppliers in those countries;
- unexpected adverse changes in foreign laws or regulatory requirements may occur;
- our agreements with counterparties in foreign countries may be difficult for us to enforce and related receivables may be difficult for us to collect;
- compliance with the variety of foreign laws and regulations may be unduly burdensome;
- compliance with anti-bribery and anti-corruption laws (such as the Foreign Corrupt Practices Act) as well as anti-money- laundering laws may be costly;
- unexpected adverse changes in export duties, quotas and tariffs and difficulties in obtaining export licenses may occur;
- general economic conditions in the countries in which we operate could have an adverse effect on our earnings from operations in those countries;
- our foreign operations may experience staffing difficulties and labor disputes;

- termination or substantial modification of international trade agreements may adversely affect our access to raw materials and to markets for our products outside the U.S.;
- foreign governments may nationalize or expropriate private enterprises;
- increased sovereign risk (such as default by or deterioration in the economies and credit worthiness of local governments) may occur; and
- political or economic repercussions from terrorist activities, including the possibility of hyperinflationary conditions and political instability, may occur in certain countries in which we do business.

Unanticipated events, such as geopolitical changes, could result in a write-down of our investment in the affected joint venture or a delay or cause cancellation of those capital projects, which could negatively impact our future growth and profitability. Our success as a global business will depend, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions by developing, implementing and maintaining policies and strategies that are effective in each location where we and our joint ventures do business.

Furthermore, we will be subject to rules and regulations related to anti-bribery and anti-trust prohibitions of the U.S. and other countries, as well as export controls and economic embargoes, violations of which may carry substantial penalties. For example, export control and economic embargo regulations limit the ability of our subsidiaries to market, sell, distribute or otherwise transfer their products or technology to prohibited countries or persons. Failure to comply with these regulations could subject our subsidiaries to fines, enforcement actions and/or have an adverse effect on our reputation and the value of our common stock.

Our tangible assets may be subject to defects in title.

We have investigated our rights to the assets we have purchased and developed and, to the best of our knowledge, those rights are in good standing. However, no assurance can be given that such rights will not be revoked, or significantly altered, to our detriment. There can also be no assurance that our rights will not be challenged or impugned by third parties, including by governments, and non-governmental organizations.

We are subject to foreign currency risks.

Our operations are subject to foreign currency fluctuations. Our operating expenses and revenues are primarily transacted in U.S. dollars, while some of our cash balances and expenses are measured in other currencies. Any strengthening or weakening of the U.S. dollar in relation to the currencies of other countries or vice versa can have a material impact on our cash flows and profitability and affect the value of our assets and shareholders' equity.

Risks Related to This Offering and Ownership of Our Common Stock

We do not know whether an active, liquid and orderly trading market will develop for our common stock or what the market price of our common stock will be and as a result it may be difficult for you to sell your shares of our common stock.

Prior to this offering there has been no public market for shares of our common stock. Although we have applied to list our common stock on the Nasdaq Capital Market (Nasdaq), an active trading market for our shares may never develop or be sustained following this offering. You may not be able to sell your shares quickly or at the market price if trading in shares of our common stock is not active. The initial public offering price for our common stock will be determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of our common stock after the offering. As a result of these and other factors, you may be unable to resell your shares of our common stock at or above the initial public offering price.

Further, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into strategic partnerships or acquire companies or products by using our shares of common stock as consideration.

The price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock following this offering is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control, including limited trading volume. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this prospectus, these factors include:

- adverse results or delays in our development activities;
- adverse regulatory decisions, including failure to receive regulatory approval for our future isotopes;
- changes in laws or regulations applicable to our future isotopes, including but not limited to requirements for approvals;
- any changes to our relationship with any manufacturers, suppliers, licensors, future collaborators or other strategic partners;
- our inability to obtain adequate product supply for any future isotope or inability to do so at acceptable prices;
- our inability to establish collaborations if needed;
- our failure to commercialize our future isotopes;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to the use of our future isotopes;
- introduction of new products or services offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures, or capital commitments by us or our competitors;
- our ability to effectively manage our growth;
- actual or anticipated variations in quarterly operating results;
- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- changes in the market valuations of similar companies;
- overall performance of the equity markets;
- issuances of debt or equity securities;
- sales of our common stock by us or our stockholders in the future or the perception that such sales may occur;
- trading volume of our common stock;
- changes in accounting practices;
- ineffectiveness of our internal controls;
- disputes or other developments relating to proprietary rights, including patents, litigation matters, and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation;

- general political and economic conditions, including the COVID-19 pandemic; and
- other events or factors, many of which are beyond our control.

In addition, the stock market in general, and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. If the market price of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company's securities. This type of litigation, if instituted, could result in substantial costs and a diversion of management's attention and resources, which would harm our business, operating results or financial condition.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders would therefore be limited to the appreciation, if any, of their stock.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Prior to this offering, our executive officers, current directors, greater than 5% holders, and their affiliates beneficially owned approximately 35.8% of our common stock as of September 30, 2022. Upon the closing of this offering, that same group will hold approximately 33.6% of our outstanding common stock, assuming the sale of 2,000,000 shares of common stock in this offering (based on shares of common stock outstanding as of September 30, 2022 and excluding awards of 3,000,000 shares of restricted stock that we anticipate making upon the effectiveness of the registration statement of which this prospectus is a part). Therefore, even after this offering, these stockholders will have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

The initial public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of $5.46 per share, based on the assumed initial public offering price of $6.00 per share and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Further, investors purchasing common stock in this offering will contribute approximately 10.6% of the total amount invested by stockholders since our inception, but will own only approximately 6.2% of the shares of common stock outstanding after giving effect to this offering.

This dilution is due to our investors who purchased shares prior to this offering having paid substantially less when they purchased their shares than the price offered to the public in this offering. To the extent outstanding options are exercised, there will be further dilution to new investors. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. For a further description of the dilution that you will experience immediately after this offering, see the section entitled "Dilution."

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market, or the perception that such sales could occur, could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based on shares of common stock outstanding as of September 30, 2022, upon the closing of this offering we will have outstanding a total of 32,107,127 shares of common stock. Of these shares, only the shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable without restriction in the public market immediately following this offering.

Subject to the restrictions described in the paragraph below, future sales in the public market of shares issued prior to this offering will be subject to the volume and other restrictions of Rule 144 under the Securities Act for so long as they are held by a person that is deemed to be our affiliate, unless the shares to be sold are registered with the SEC. The sale of a substantial number of shares after this offering, or a perception that such sales could occur, could significantly reduce the market price of our common stock.

We expect that the lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. After the lock-up agreements expire, up to an additional shares of common stock will be eligible for sale in the public market, of which 14,376,125 shares are held by directors, executive officers, and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act. In addition, 7,901,000 shares of common stock that are either subject to outstanding options or reserved for future issuance under our employee benefit plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements, and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of 3,012,280 shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the 180-day lock-up agreements described above. See the section entitled "Description of Capital Stock — Registration Rights." Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

Participation in this offering by certain of our existing stockholders and their affiliated entities may reduce the public float for our common stock.

If any of our existing stockholders and their affiliated entities purchase shares of our common stock in this offering, such purchases would reduce the available public float of our common stock because such purchasers would be restricted from selling such shares during the 180-day period following this offering and thereafter would be subject to volume limitations pursuant to restrictions under applicable securities laws. As a result, any purchase of shares of our common stock by our existing stockholders and their affiliated entities in this offering will reduce the liquidity of our common stock relative to what it would have been had these shares been purchased by investors that were not our stockholders.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that we will need significant additional capital in the future to continue our planned operations, including development activities, commercialization efforts if we are able to obtain marketing approval of future isotopes, research and development activities, and costs associated with operating a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock, including shares of common stock sold in this offering.

Pursuant to our 2022 Plan, our management is authorized to grant stock options to our employees, directors and consultants. Additionally, the number of shares of our common stock reserved for issuance under our 2022 Plan will automatically increase on January 1 of each year, beginning on January 1, 2023 and continuing through and including January 1, 2032, by 5% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year (determined on an as-converted to voting common stock basis, without regard to any limitations on the conversion of the non-voting common stock), or a lesser number of shares determined by our board of directors.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. The failure by our management to apply these funds effectively could harm our business. We intend to invest the net proceeds to us from the offering that are not used as described above in short- and medium-term, investment-grade, interest-bearing instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

We are an emerging growth company and a smaller reporting company, and the reduced reporting requirements applicable to emerging growth companies and smaller reporting companies may make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company until December 31, 2027, although circumstances could cause us to lose that status earlier, including if we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act or if we have total annual gross revenue of $1.07 billion or more during any fiscal year before that time, in which cases we would no longer be an emerging growth company as of the following December 31 or, if we issue more than $1.0 billion in non-convertible debt during any three year period before that time, we would cease to be an emerging growth company immediately. Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. Investors may find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of accounting standards that have different effective dates for public and private companies until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards, and therefore we will not be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect at the closing of this offering could make a merger, tender offer or proxy contest difficult, thereby depressing the trading price of our common stock.

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective upon the closing of this offering, may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will:

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in our control);
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that our board of directors or any individual director may only be removed with cause and the affirmative vote of the holders of at least 66-2/3% of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally in the election of directors, voting together as a single class;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder’s notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chair of our board of directors, our Chief Executive Officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings under state, statutory and common law: (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders; (iii) any action asserting a claim pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws; (iv) any action as to which the Delaware General Corporation Law confers jurisdiction to the Court of Chancery of the State of Delaware; and (vi) any action governed by the internal affairs doctrine, in all cases subject to the court’s having personal jurisdiction over the indispensable parties named as defendants; provided these provisions of our amended and restated

certificate of incorporation and amended and restated bylaws will not apply to suits brought to enforce a duty or liability created by the Exchange Act, or any other claim for which the federal courts have exclusive jurisdiction; and provided that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended (Securities Act), including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional or entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the holders of at least 66-2/3% of our then-outstanding common stock.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time. A Delaware corporation may opt out of this provision by express provision in its original certificate of incorporation or by amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out of this provision.

These and other provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law could make it more difficult for stockholders or potential acquirors to obtain control of our board of directors or initiate actions that are opposed by our then-current board of directors, including delay or impede a merger, tender offer or proxy contest involving our company. The existence of these provisions could negatively affect the price of our common stock and limit opportunities for you to realize value in a corporate transaction.

For information regarding these and other provisions, see “Description of Capital Stock.”

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for certain disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated certificate of incorporation that will become effective upon the closing of this offering will provide that, subject to the court’s having personal jurisdiction over the indispensable parties named as defendants, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders;
- any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or bylaws;
- any action as to which the Delaware General Corporation Law confers jurisdiction to the Court of Chancery of the State of Delaware; and
- any action asserting a claim that is governed by the internal affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving

any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find either exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could seriously harm our business.

General Risk Factors

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, we will incur significant legal, accounting, and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Exchange Act, which will require, among other things, that we file with the SEC annual, quarterly, and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and Nasdaq to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Emerging growth companies and smaller reporting companies are exempted from certain of these requirements, but we may be required to implement these requirements sooner than budgeted or planned and thereby incur unexpected expenses. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition, and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

We have identified a material weakness in our internal control over financial reporting. If our remediation of this material weakness is not effective, or if we experience material weaknesses in the future or otherwise fail to implement and maintain an effective system of internal controls in the future, we may not be able to accurately report our financial condition or results of operations which may adversely affect investor confidence in us, and as a result, the value of our common stock.

As a privately-held company, we were not required to evaluate our internal control over financial reporting in a manner that meets the standards of publicly traded companies required by Section 404(a) of the Sarbanes-Oxley Act, or Section 404. As a public company, we will be subject to significant requirements for enhanced financial reporting

and internal controls. The process of designing and implementing effective internal controls is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a system of internal controls that is adequate to satisfy our reporting obligations as a public company. In addition, we will be required, pursuant to Section 404, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting in the second annual report following the completion of this offering. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. A material weakness is a deficiency or combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual and interim financial statements will not be detected or prevented on a timely basis.

The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing, and possible remediation. Testing and maintaining internal controls may divert management's attention from other matters that are important to our business. Once we are no longer an "emerging growth company," or a "smaller reporting company", our auditors will be required to issue an attestation report on the effectiveness of our internal controls on an annual basis.

In the course of preparing the financial statements that are included in this prospectus, management has determined that a material weakness exists within the internal controls over financial reporting. The material weakness identified relates to the lack of a sufficient complement of personnel within the finance and accounting function with an appropriate degree of knowledge, experience and training. We also noted a material weakness related to logical security and privileged access in the area of information technology. We concluded that the material weakness in our internal control over financial reporting occurred because, prior to this offering, we were a private company and did not have the necessary business processes, systems, personnel, and related internal controls necessary to satisfy the accounting and financial reporting requirements of a public company.

In order to remediate the material weakness, we expect to hire additional accounting and finance resources or consultants with public company experience.

We may not be able to fully remediate the identified material weakness until the steps described above have been completed and our internal controls have been operating effectively for a sufficient period of time. We believe we have already and will continue to make progress in our remediation plan during the year ending December 31, 2022, but cannot assure you that we will be able to fully remediate the material weakness by such time. If the steps we take do not correct the material weakness in a timely manner, we will be unable to conclude that we maintain effective internal control over financial reporting. Accordingly, there could continue to be a reasonable possibility that a material misstatement of our financial statements would not be prevented or detected on a timely basis. We also may incur significant costs to execute various aspects of our remediation plan but cannot provide a reasonable estimate of such costs at this time.

In accordance with the provisions of the JOBS Act, we and our independent registered public accounting firm were not required to, and did not, perform an evaluation of our internal control over financial reporting as of December 31, 2021 nor any period subsequent in accordance with the provisions of the SarbanesOxley Act. Accordingly, we cannot assure you that we have identified all material weaknesses. Material weaknesses may still exist when we report on the effectiveness of our internal control over financial reporting as required under Section 404 of the Sarbanes-Oxley Act after the completion of this offering.

In the future, it is possible that additional material weaknesses or significant deficiencies may be identified that we may be unable to remedy before the requisite deadline for these reports. Our ability to comply with the annual internal control reporting requirements will depend on the effectiveness of our financial reporting and data systems and controls across our company. Any weaknesses or deficiencies or any failure to implement new or improved controls, or difficulties encountered in the implementation or operation of these controls, could harm our operating results and cause us to fail to meet our financial reporting obligations, or result in material misstatements in our consolidated financial statements, which could adversely affect our business and reduce our stock price.

If we are unable to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404, our independent registered public accounting firm may not issue an unqualified opinion. If we are unable to conclude that we have effective internal control over financial reporting, investors could lose confidence in our reported financial information, which could have a material adverse effect on the trading price of our common stock. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Our failure to meet Nasdaq's continued listing requirements could result in a delisting of our common stock.

If, after listing, we fail to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to delist our common stock. Such a delisting would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with the listing requirements of Nasdaq.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If no securities or industry analysts commence coverage of our company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price may decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of the federal securities laws that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations or financial condition, business strategy and plans, and objectives of management for future operations are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “would,” “potential” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. These forward-looking statements include, among others, statements relating to our future financial performance, our business prospects and strategy, our market opportunity and the potential growth of that market, our anticipated financial position, our liquidity and capital needs and other similar matters. These forward-looking statements are based on management’s current expectations and assumptions about future events, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict.

Our actual results may differ materially from those expressed in, or implied by, the forward-looking statements included in this prospectus as a result of various factors, including, among others:

- our ability to complete and commission the Mo-100 enrichment plant in a timely and cost-effective manner, and our dependence upon Klydon for the completion and commissioning of the Mo-100 enrichment plant;
- our ability to meet, and to continue to meet, applicable regulatory requirements for the use of the isotopes we may produce using the ASP technology;
- our ability to comply on an ongoing basis with the numerous regulatory requirements applicable to the ASP technology and our M0-100 enrichment facility in South Africa;
- the introduction, market acceptance and success of Mo-100 that we may produce using ASP technology as an alternative and potentially more convenient production route for Tc-99m;
- the success or profitability of our future offtake arrangements with respect to Mo-100 that we may produce using ASP technology;
- a failure of demand for Mo-100 that we may produce using ASP technology;
- our future capital requirements and sources and uses of cash;
- our ability to obtain funding for its operations and future growth;
- the extensive costs, time and uncertainty associated with new technology development;
- developments and projections relating to our competitors and industry;
- the ability to recognize the anticipated benefits of the acquisition of assets of Molybdos (Pty) Limited in the “business rescue” auction and the ASP technology for the production of Mo-100 and U-235 we licensed from Klydon Proprietary Ltd;
- problems with the performance of the ASP technology in the enrichment of isotopes;
- our dependence on a limited number of third party suppliers for certain components;
- our inability to adapt to changing technology and diagnostic landscape, such as the emergence of new diagnostic scanners or tracers;
- our expected dependence on a limited number of key customers for Mo-100 that we may produce using ASP technology;
- our inability to protect our intellectual property and the risk of claims that we have infringed on the intellectual property of others;

- our inability to compete effectively;
- risks associated with the current economic environment;
- risks associated with our international operations;
- geopolitical risk and changes in applicable laws or regulations;
- our inability to adequately protect our technology infrastructure;
- our inability to hire or retain skilled employees and the loss of any of our key personnel;
- operational risk;
- costs and other risks associated with becoming a reporting company and becoming subject to the Sarbanes-Oxley Act;
- our inability to implement and maintain effective internal controls; and
- other factors that are described in “Risk Factors,” beginning on page 8.

We have based the forward-looking statements contained in this prospectus primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, prospects, business strategy and financial needs. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, assumptions and other factors described in the section captioned “Risk Factors” and elsewhere in this prospectus. These risks are not exhaustive. Other sections of this prospectus include additional factors that could adversely impact our business and financial performance. Furthermore, new risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus. The results, events and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus forms a part with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

The forward-looking statements made in this prospectus relate only to events as of the date on which such statements are made. We undertake no obligation to update any forward-looking statements after the date of this prospectus or to conform such statements to actual results or revised expectations, except as required by law.

MARKET, INDUSTRY AND OTHER DATA

We use market and industry data, forecasts and projections throughout this prospectus. We have obtained certain market and industry data from publicly available industry publications and from certain sources that are not publicly available. These sources generally state that the information they provide has been obtained from sources believed to be reliable, but that the accuracy and completeness of the information are not guaranteed. The forecasts and projections are based on historical market data, and any of the forecasts or projected amounts may not be achieved. The market and industry data used in this prospectus involve risks and uncertainties that are subject to change based on various factors, including those discussed in the section titled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in, or implied by, the estimates made by independent parties and by us. Furthermore, we cannot assure you that a third party using different methods to assemble, analyze or compute industry and market data would obtain the same results.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of shares of our common stock in this offering will be approximately $10.2 million, based upon the assumed initial public offering price of $6.00 per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discount and estimated offering expenses payable by us. If the underwriters' option to purchase additional shares is exercised in full, we estimate that the net proceeds to be received by us will be approximately $11.9 million, after deducting the estimated underwriting discount and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $6.00 per share would increase (decrease) the net proceeds that we receive from this offering by approximately $1.9 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million in the number of shares offered by us would increase (decrease) the net proceeds that we receive from this offering by approximately $5.6 million, assuming that the assumed initial public offering price remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

The principal purposes of this offering are to increase our capitalization and financial flexibility, create a public market for our common stock and thereby enable access to the public equity markets for us and our stockholders.

We initiated Phase 1 of the Mo-100 development plan under the turnkey contract, targeting 5 kg/year of 95% enriched Mo-100, in October 2021 and we expect to complete this phase using cash on hand during the second half of 2022. Upon completion of Phase 1, we intend to use a portion of the net proceeds from this offering (currently estimated to be approximately $6.0 million of the total net proceeds) to initiate and fully fund Phase 2 of the Mo-100 development plan under the turnkey contract, which targets expanded production of up to 20 kg/year of 95% enriched Mo-100. We intend to use the remainder of the net proceeds we receive from this offering for research and development for potential additional isotopes that we may offer, as well as headcount costs, working capital and other general corporate purposes. We may also use a portion of the net proceeds for acquisitions of, or strategic investments in, complementary businesses, products, services, or technologies. However, we do not have any agreements or commitments to enter into any material acquisitions or investments at this time. Pending their use, we intend to invest the net proceeds from the offering in investment-grade, interest-bearing instruments, such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

This expected use of net proceeds from this offering represents our intentions based on our current plans and business conditions, which could change in the future as our plans and business conditions evolve. We cannot specify with any certainty the particular uses of the net proceeds that we will receive from this offering. Our management will have broad discretion in the application of the net proceeds from this offering and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately.

DIVIDEND POLICY

We currently intend to retain all available funds and future earnings, if any, for use in the operation of our business and do not intend to declare or pay any cash dividends in the foreseeable future. Any further determination to pay dividends on our capital stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions, and other factors that our board of directors consider relevant. Our future ability to pay cash dividends on our common stock may also be limited by the terms of any future debt securities, preferred stock or credit facility.

Table of Contents

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of June 30, 2022, as follows:

- on an actual basis;
- on a pro forma basis to reflect (i) the filing of our Certificate of Incorporation immediately prior to the closing of this offering and (ii) the issuance of 700,000 shares of common stock in July 2022 for no proceeds; and
- on a pro forma as-adjusted basis to give effect to (1) the pro forma item described immediately above, and (2) our issuance and sale of 2,000,000 shares of common stock in this offering at an assumed initial public offering price of $6.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discount and our estimated offering expenses.

The pro forma and pro forma as-adjusted information below is illustrative only, and our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information in conjunction with our consolidated financial statements and the related notes included elsewhere in this prospectus, the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other financial information contained in this prospectus.

	As of June 30, 2022		
	Actual	Pro forma	Pro forma as-adjusted
Cash	$ 2,813,411	$ 2,813,411	$ 13,202,611
Stockholders' equity:			
Preferred stock, $0.01 par value; no shares authorized, issued, and outstanding, actual, and 10,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	$ —	$ —	$ —
Common stock, $0.01 par value; 50,000,000 shares authorized, 29,407,127 shares issued and outstanding at June 30, 2022, actual, 500,000,000 shares authorized, 30,107,127 shares issued and outstanding, pro forma; 500,000,000 shares authorized, 32,107,127 shares issued and outstanding, pro forma as adjusted	294,071	301,071	321,071
Additional paid-in capital	11,256,158	12,656,158	22,871,158
Accumulated other comprehensive income	143,994	143,994	143,994
Accumulated deficit	(4,292,685)	(5,692,685)	(5,692,685)
Total stockholders' equity	7,408,538	7,408,538	17,643,538
Total capitalization	$ 7,408,538	$ 7,408,538	$ 17,643,538

(1) A $1.00 increase (decrease) in the assumed initial public offering price of our common stock of $6.00 per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, would increase (decrease) the as-adjusted amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $1.9 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 1.0 million in the number of shares offered by us would increase (decrease) the as-adjusted amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $5.6 million, assuming that the assumed initial public offering price remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

If the underwriters' option to purchase additional shares is exercised in full, pro forma asadjusted cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization and shares of common stock outstanding would be $14.9 million, $24.5 million, $19.3 million, $19.3 million and 32,407,127 shares, respectively.

The outstanding share information in the table above is based on 29,407,127shares of our common stock outstanding as of June 30, 2022 and excludes (1) 2,901,000shares of our common stock issuable upon the exercise of options outstanding as of September 30, 2022 under the 2021 Plan, at a weighted-average exercise price of $1.91 per share, (2) 5,000,000 shares of common stock reserved for future issuance under the 2022 Plan under which we expect to make all future awards (including awards to our executive officers, directors and consultants of 3,000,000 shares of restricted stock that we anticipate making upon the effectiveness of the registration statement of which this prospectus is a part), and (3) 120,491 shares of common stock issuable to Revere Securities LLC as partial compensation for its role as placement agent in connection with an unregistered offering of shares of common stock.

Our 2022 Plan provides for annual automatic increases in the number of shares reserved thereunder. See the section titled "Executive Compensation — Employee Benefit and Equity Incentive Plans" for additional information.

DILUTION

If you invest in our common stock in this offering, your interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock in this offering and the pro forma as-adjusted net tangible book value per share of our common stock after this offering. As of June 30, 2022, we had a historical net tangible book value of $7.3 million, or $0.25 per share of common stock. Our net tangible book value represents total tangible assets less total liabilities, all divided by the number of shares of common stock outstanding on such date.

Our pro forma net tangible book value as of June 30, 2022 was $7.3 million, or $0.24 per share of common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to (i) our issuance of 700,000 shares of common stock in July 2022 for no proceeds. Pro forma net tangible book value per share represents pro forma net tangible book value divided by the total number of shares outstanding as of June 30, 2022, after giving effect to the pro forma adjustment described above.

After giving effect to the sale of 2,000,000 shares of common stock in this offering at an assumed initial public offering price of $6.00 per share, the midpoint of the price range set forth on the cover page of this prospectus and after deducting the estimated underwriting discount and estimated offering expenses payable by us, our pro forma as-adjusted net tangible book value as of June 30, 2022 would have been approximately $17.5 million, or approximately $0.54 per share. This represents an immediate increase in pro forma net tangible book value of $0.30 per share to existing stockholders and an immediate dilution in pro forma net tangible book value of $5.46 per share to new investors purchasing shares of common stock in this offering. Dilution per share to new investors is determined by subtracting pro forma as-adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this per share dilution:

Assumed initial public offering price per share		$ 6.00
Historical net tangible book value per share as of June 30, 2022	$ 0.25	
Decrease per share attributable to the pro forma adjustments described above	(0.01)	
Pro forma net tangible book value per share as of June 30, 2022, before giving effect to this offering	0.24	
Increase in historical net tangible book value per share attributable to new investors in this offering	0.30	
Pro forma as-adjusted net tangible book value per share immediately after this offering		0.54
Dilution per share to new investors in this offering		$ 5.46

A $1.00 increase (decrease) in the assumed initial public offering price of $6.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease), our pro forma as-adjusted net tangible book value per share after this offering by $0.06 , and would increase (decrease) dilution per share to new investors in this offering by $0.94, in each case assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us would increase (decrease) our pro forma as-adjusted net tangible book value per share after this offering by approximately $0.16 per share and decrease (increase) the dilution to new investors by approximately $0.16 per share, in each case assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' option to purchase additional shares. If the underwriters' option to purchase additional is exercised in full, pro forma as-adjusted net tangible book value after this offering would be approximately $0.59 per share, the increase in pro forma net tangible book value per share to existing stockholders would be $0.35 per share and the dilution per share to new investors would be $5.41 per share, in each case assuming an initial public offering price of $6.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

The following table summarizes, on a pro forma as adjusted basis as of June30, 2022, the differences between the number of shares of common stock purchased from us, the total consideration paid and the average price per share paid by existing stockholders and to be paid by the new investors purchasing shares of common stock in this offering, at the assumed initial public offering price of common stock of $6.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting the estimated underwriting discount and estimated offering expenses payable by us.

	Shares purchased		Total consideration		Average price per share
	Number	Percent	Amount	Percent	
Existing investors	30,107,127	93.8%	$ 101,537,835	89.4%	$ 3.37
New investors in this offering	2,000,000	6.2	12,000,000	10.6	6.00
Total	32,107,127	100%	113,537,835	100%	

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common stock held by existing stockholders would be reduced to 92.9% of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors purchasing common stock in this offering would be increased to 7.1% of the total number of shares of our common stock outstanding after this offering.

The number of shares of our common stock that will be outstanding after this offering is based on 29,407,127 shares of our common stock outstanding as of June30, 2022, and excludes (1) 2,901,000shares of our common stock issuable upon the exercise of options outstanding as of September 30, 2022 under the 2021 Plan, at a weighted-average exercise price of $1.91 per share, (2) 5,000,000 shares of common stock reserved for future issuance under the 2022 Plan (including awards to our executive officers, directors and consultants of 3,000,000 shares of restricted stock that we anticipate making upon the effectiveness of the registration statement of which this prospectus is a part), and (3) 120,491 shares of common stock issuable to Revere Securities LLC as partial compensation for its role as placement agent in connection with an unregistered offering of shares of common stock.

Our 2022 Plan provide for annual automatic increases in the number of shares reserved thereunder. See the section titled "Executive Compensation — Employee Benefit and Equity Incentive Plans" for additional information.

To the extent any of the outstanding options are exercised or new options or other securities are issued under our equity incentive plans, you will experience further dilution as a new investor in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Furthermore, we may choose to issue common stock as part or all of the consideration in acquisitions as part of our planned growth strategy. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our historical results of operations and our liquidity and capital resources should be read together with the consolidated financial statements and related notes that appear elsewhere in this prospectus. In addition to historical financial information, this prospectus contains "forward-looking statements." You should review the "Special Note Regarding Forward-Looking Statements" and "Risk Factors" sections of this prospectus for factors and uncertainties that may cause our actual future results to be materially different from those in our forward-looking statements. Forward-looking statements in this prospectus are based on information available to us as of the date hereof, and we assume no obligation to update any such forward-looking statements.

Overview

We are a pre-commercial stage advanced materials company dedicated to the development of technology and processes that, if successful, will allow for the enrichment of natural isotopes into higher concentration products, which could be used in several industries. We were incorporated in Delaware in September 2021 to acquire assets and license intellectual property rights related to the production of isotopes using Aerodynamic Separation Process ("ASP technology"), originally developed and licensed to us by Klydon Proprietary Ltd ("Klydon"). We have an exclusive license to use the ASP technology for the production, distribution, marketing and sale of all isotopes. Our initial focus is on the production and commercialization of enriched Molybdenum-100 ("Mo-100"). Klydon has agreed to provide us a first commercial-scale Mo-100 enrichment plant located in South Africa with a manufacturing capacity of 20 kg/year of 95% enriched Mo-100 when fully operational. We believe that the Mo-100 we may develop using the ASP technology has significant potential advantages for use in the preparation of nuclear imaging agents by radiopharmacies and others in the medical industry. We also intend to use the ASP technology to produce enriched Uranium-235 ("U-235"). We believe that the U-235 we may develop using the ASP technology may be commercialized as a nuclear fuel component for use in the new generation of HALEU-fueled small modular reactors that are now under development for commercial and government uses.

We operate principally through subsidiaries: ASP Isotopes Guernsey Limited (the holding company of ASP Isotopes South Africa (Proprietary) Limited), which will be focused on the development and commercialization of high value, low volume isotopes for highly specialized end markets (such as Mo-100 and others, including Silicon-28); Enriched Energy LLC, which will be focused on the development and commercialization of uranium for the nuclear energy market; and ASP Isotopes UK Ltd, which is the licensee of the ASP technology under the exclusive license agreement with Klydon.

Acquisition of Assets and Agreements with Klydon

To date, we have purchased certain assets of Molybdos Proprietary Limited, a South Africa company (Molybdos), and entered into a number of agreements with Klydon (Pty) Limited, a South Africa company (Klydon). Below is a summary of the key terms for our licenses and other agreements with Klydon. For a more detailed description of these agreements, see the sections of this prospectus entitled "Certain Relationships and Related Party Transactions — Our Relationship with Klydon Proprietary Limited."

Acquisition of Molybdos Assets. On September 30, 2021, our subsidiary, ASP Isotopes South Africa (Proprietary) Limited ("ASP South Africa") participated in and was declared the winner of a competitive auction process under Section 45 of the South Africa Consumer Protection Act, 2008 related to the sale and assignment of the assets of Molybdos (the "Molybdos Business Rescue Auction"). On October 12, 2021, ASP South Africa acquired the assets of Molybdos for ZAR 11,000,000 (which at the then current exchange rate was approximately USD734,000), plus value added tax (VAT) levied by the government of South Africa at the rate of 15% and auctioneers' commission at the rate of 10%.

Acquisition of Silicon-28 Plant Assets. On July 26, 2022, we acquired assets comprising a dormant Silicon-28 aerodynamic separation processing plant from Klydon for ZAR 6,000,000 (which at the then current exchange rate was approximately USD 364,000), which will be payable to Klydon on the later of 180 days of the acquisition and the date on which the assets generate any revenues of any nature.

Exclusive Mo-100 License (superseded and replaced by new license (see "Omnibus Klydon License" below)). On September 30, 2021, ASP South Africa, as licensee, entered into a license with Klydon, as licensor, pursuant to which ASP South Africa acquired from Klydon an exclusive license to use, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the development and/or otherwise disposing of the ASP technology and production, distribution, marketing and or sale of Mo-100 isotope produced using the ASP technology (as amended on June 8, 2022, the "Mo-100 license"). The intellectual property rights granted to us through the Mo-100 license included all existing and/or future proprietary rights of Klydon relating to the ASP technology, whether or not such rights have been registered including the copyright, designs, know-how, patents and trademarks (although Klydon currently has no such patents, patent applications or copyrights). The exclusive Mo-100 license was royalty-free, had a term of 999 years and was for the global development of the ASP Technology and production of the Mo-100 Isotope and global for the distribution, marketing and sale of the Mo-100 Isotope. No upfront or other payment was made or is owed in connection with the Mo-100 license. Klydon had the right to terminate the exclusivity of the Mo-100 license in the event that the licensee ceased carrying on activities of Mo-100 enrichment for a period longer than 24 consecutive months. Klydon had no other rights to terminate the Mo-100 license. Effective July 26, 2022, the parties agreed to terminate the Mo-100 license, which was superseded and replaced by a new license agreement (described under the heading "Omnibus Klydon License" below).

Exclusive U-235 License (superseded and replaced by new license (see "Omnibus Klydon License" below)). On January 25, 2022, ASP South Africa, as licensee, entered into a license with Klydon, as licensor, pursuant to which ASP South Africa acquired from Klydon an exclusive license to use, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the development and/or otherwise disposing of the ASP technology and production, distribution, marketing and or sale of U-235 produced using the ASP (as so amended, the "U-235 license"). The intellectual property rights granted to us through the U-235 license included all existing and/or future proprietary rights of Klydon relating to the ASP technology, whether or not such rights have been registered including the copyright, designs, know-how, patents and trademarks (although Klydon currently has no such patents, patent applications or copyrights). The exclusive U-235 license had a term of 999 years and was for the global development of the ASP technology and production of U-235 and global for the distribution, marketing and sale of U-235. In connection with the U-235 license we made an upfront payment of $100,000 and agreed to pay certain royalties (the greater of $50 per k.g. of U-235 and 10% of profits) and a 33% sublicensing revenue share of any cash consideration we may receive for any sublicenses we may grant. Klydon had the right to terminate the exclusivity of the U-235 license in the event that the licensee ceased carrying on activities of U-235 enrichment for a period longer than 24 consecutive months. Klydon had no other rights to terminate the U-235 license. Effective July 26, 2022, the parties agreed to terminate the U-235 license, which was superseded and replaced by a new license agreement (described under the heading "Omnibus Klydon License" below).

Omnibus Klydon License. On July 26, 2022, ASP Isotopes UK Ltd, as licensee, entered into a license agreement with Klydon, as licensor, pursuant to which ASP Isotopes UK Ltd acquired from Klydon an exclusive license to use, develop, modify, improve, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the production, distribution, marketing and sale of all isotopes produced using the ASP technology (the "Klydon license agreement"). The intellectual property rights granted to us through the Klydon license agreement include all existing and/or future proprietary rights of Klydon relating to the ASP technology, whether or not such rights have been registered including the copyright, designs, know-how, patents and trademarks (although Klydon currently has no such patents, patent applications or copyrights). The Klydon license agreement superseded and replaced the Mo-100 license and U-235 license described above. The Klydon license agreement is royalty-free, has a term of 999 years and is worldwide for the development of the ASP technology and the distribution, marketing and sale of isotopes. Future production of isotopes is limited to member countries of the Nuclear Suppliers Group. In connection with the Klydon license agreement we agreed to make an upfront payment of $100,000 (to be included within the payments we make under the Turnkey Contract (described below) and deferred payments of $300,000 over 24 months. Klydon has the right to terminate the exclusivity of the Klydon license agreement in the event that the licensee ceases to carry on activities related to isotope enrichment for a period longer than 24 consecutive months.

Turnkey Contract. On November 1, 2021, ASP South Africa and Klydon, as the contractor, entered into a contract under which Klydon has been appointed to supply to ASP South Africa a complete turnkey Molybdenum-100 enrichment plant (the "Turnkey Contract"). The activities to be undertaken or performed by Klydon include: taking control of the assets acquired in the Molybdos Business Rescue Auction; the design of a Molybdenum-100 enrichment facility with target manufacturing capability of 20 Kg p.a of 95% and above enriched

Molybdenum isotope; the supply of components, equipment and labor required for 20 Kg p.a.; the installation, testing and commissioning of the Molybdenum enrichment plant, including production of targets to be used by customers in cyclotrons; securing all required approvals, regulatory authorizations and other required consents for the operation of the plant; providing training to local ASP Isotopes South Africa (Proprietary) Limited personnel to enable them to operate the plant going forward; and providing warranties in relation to the performance targets of the plant which are required to be met. Klydon will be responsible for liaising with the relevant South African authorities including the South African Non Proliferation Council, the Nuclear Suppliers Group and International Atomic Energy Agency to ensure that the Turnkey Contract and the Molybdenum-100 enrichment plant are compliant with international laws and guidelines. The consideration to be paid by ASP Isotopes South Africa (Proprietary) Limited under the Turnkey Contract is a maximum of $12.8 million, in the following stages: (1) $6.8 million in an initial proof of concept stage (which stage will end at the point of first production of Mo-100); and (2) $6.0 million for increasing production capacity through modular construction (from the expected initial capacity of 5 kg p.a. to 20 kg p.a. of 95% enriched molybdenum-100). The Company's management expects that the initial proof of concept stage (Phase 1) will be completed during the second half of 2022 and an additional 12 months will be needed for completion of the secondary investment stage (Phase 2).

Letter of Intent for Klydon Shares or Assets. On September 30, 2021, ASP South Africa entered into a letter of intent with Klydon and Isotope Separation Technology (Pty) Ltd (Klydon's largest shareholder which is owned by Dr Ronander and Dr Strydom) with respect to the acquisition of all of the outstanding shares or substantially all of the assets of Klydon. Under the letter of intent (as amended), Klydon has agreed to negotiate with us on an exclusive basis. We are in the process of preparing, and negotiating with Klydon, the share purchase agreement and related agreements with respect to the Klydon acquisition, but such transaction documents are not yet in agreed form and as of the date hereof, several issues remain open that, if not resolved, will prevent us from entering into a definitive agreement with respect to the Klydon acquisition. We do not expect the timing or success of the Klydon acquisition to have a material effect on either our business or our financial results in the future because of the existing commercial agreements that we have with Klydon. We believe that the Klydon license agreement and the Turnkey Contract provide us with the requisite intellectual property rights and personnel (through Klydon's workforce) that we need to conduct our business as currently proposed to be conducted. While an acquisition of Klydon would be beneficial to us in terms of adding employees in South Africa, the services of the individuals who are working to deliver the Mo-100 enrichment plant are already assured under the Turnkey Contract with Klydon. In the event we do not complete an acquisition of Klydon by the completion of the Turnkey Contract (after Klydon has delivered a fully commissioned Mo-100 enrichment plant), we would likely need to enter into a new agreement with Klydon as a contractor in order to operate the new Mo-100 enrichment plant. Alternatively, we would need to hire employees who would be able to operate the new Mo-100 enrichment plant.

Other Commercial Agreements

Below is a summary of the key terms of our other commercial agreements.

Lease for Molybdenum Processing Plant. On October 12, 2021, ASP South Africa entered into an agreement of lease with the landlord of the facility located at 33 Eland Street, Koedoespoort Industrial, Pretoria where Klydon and its scientists and engineers will operate on our behalf the Molybdenum processing plant where gaseous Molybdenum compound will be treated (which process comprises several stages of compression and expansion during which the product is purified). The term of the lease ends on December 31, 2030.

Political Risk Insurance Policy with Optio Group. On October 25, 2021, ASP Guernsey entered into a contract of insurance to cover against political risk and expropriation, to off-set the risk of events detrimental to the company occurring in the Republic of South Africa for a period of three years. The insurer is Optio Group Limited which is 100% underwritten by one or more syndicates at Lloyd's of London. The specific risks covered in the policy are: (i) permanent and total abandonment of operations, (ii) deprivation of assets or shareholding, (iii) physical damage due to political violence, (iv) non-transfer or inconvertibility, (v) business interruption, (vi) non-honouring of arbitration award, and (vii) crisis management support. The limit of cover is equal to or in excess of the projected amount of investment required to complete the initial stage of the first planned Molybdenum enrichment plant. The limit of cover is capable of being increased and extended by mutual agreement with the insurer.

Components of Results of Operations

Operating Expenses

Our operating expenses consist of (i) research and development expenses and (ii) general and administrative expenses.

Research and Development

Our research and development expenses consist primarily of direct and indirect costs incurred in connection with the development activities for our future isotopes.

Direct costs include:

- external research and development expenses incurred under the Turnkey Contract; and
- costs related to designing the development processes of isotope production.

Indirect costs include:

- personnel-related costs, which include salaries, payroll taxes, employee benefits, and other employee-related costs, including stock-based compensation, for personnel engaged in research and development functions; and
- facilities and other various expenses.

Research and development expenses are recognized as incurred and payments made prior to the receipt of goods or services to be used in research and development are capitalized until the goods or services are received.

As described above, Klydon will charge us for expenses associated with these research and development functions under the Turnkey Contract. We expect that our research and development expenses will increase substantially for the foreseeable future as we continue the development of our future isotopes. We cannot determine with certainty the timing of initiation, the duration or the completion costs of development activities. Actual development timelines, the probability of success and development costs can differ materially from expectations.

We will need to raise substantial additional capital in the future. In addition, we cannot forecast which future isotopes may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Our research and development expenses may vary significantly based on a variety of factors, such as:

- the scope, rate of progress, expense and results of our development activities;
- the phase of development of our future isotopes;
- the timing, receipt, and terms of any approvals from applicable regulatory authorities including the FDA and foreign regulatory authorities;
- significant and changing government regulation and regulatory guidance;
- the cost and timing of designing the development processes of isotope production;
- the extent to which we establish additional strategic collaborations or other arrangements; and
- the impact of any business interruptions to our operations or to those of the third parties with whom we work, including Klydon, particularly in light of the current COVID-19 pandemic environment.

A change in the outcome of any of these variables with respect to the development of any of our future isotopes could significantly change the costs and timing associated with the development of that future isotope.

General and Administrative

General and administrative expenses consist primarily of personnel-related costs, which include salaries, payroll taxes, employee benefits, and other employee-related costs, including stock-based compensation, for personnel in executive, finance and other administrative functions. Other significant costs include legal fees relating to corporate matters, professional fees for accounting and consulting services and facility-related costs.

We expect that our ongoing general and administrative expenses will increase substantially for the foreseeable future to support our increased research and development activities and increased costs of operating as a public company and in building our internal resources. These increased costs will include increased expenses related to audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums and investor and public relations costs associated with operating as a public company.

Results of Operations

Six Months Ended June 30, 2022

The following table summarizes our results of operations for the six months ended June30, 2022:

	Six Months Ended June 30, 2022
Operating expenses:	
Research and development	$ 446,440
General and administrative	1,239,772
Total operating expenses	1,686,212
Loss from operations	(1,686,212)
Interest Income	1,454
Net loss	$ (1,684,758)

Research and Development Expenses

The following table summarizes our research and development expenses for the six months ended June30, 2022:

	Six Months Ended June 30, 2022
Direct costs:	
Mo-100	$ 6,645
Indirect costs:	
Personnel-related costs	239,688
Consulting, facility and other expenses	200,107
Total research and development expenses	$ 446,440

Research and development expenses were $446,440 for the six months ended June 30, 2022. These expenses include $6,645 in consulting expenses related to advancing development activities for Mo-100, $216,000 of personnel-related costs, $23,688 in stock-based compensation, $99,580 in license fees and $100,527 in consulting, facility and other expenses.

General and Administrative Expenses

General and administrative expenses were $1,239,772 for the six months ended June 30, 2022. These expenses include $397,503 of personnel-related costs, $207,860 in stock-based compensation, $513,333 of professional services and legal related fees and $121,076 in facility and other corporate expenses.

Period from September 13, 2021 (Inception) through December 31, 2021

The following table summarizes our results of operations for the period from September 13, 2021 (Inception) through December 31, 2021:

	For the period from September 13, 2021 (Inception) through December 31, 2021
Operating expenses:	
Research and development	$ 41,610
General and administrative	2,566,432
Total operating expenses	2,608,042
Loss from operations	(2,608,042)
Interest Income	115
Net loss	$ (2,607,927)

Research and Development Expenses

The following table summarizes our research and development expenses for the period from September 13, 2021 (Inception) through December 31, 2021:

	For the period from September 13, 2021 (Inception) through December 31, 2021
Direct costs:	
Mo-100	$ 9,360
Indirect costs:	
Facility and related expenses	32,250
Total research and development expenses	$ 41,610

Research and development expenses were $41,610 for the period from September 13, 2021 (Inception) through December 31, 2021. These expenses include $9,360 in consulting expenses related to advancing development activities for Mo-100 and $32,250 in facility and related expenses.

General and Administrative Expenses

General and administrative expenses were $2,566,432 for the period from September 13, 2021 (Inception) through December 31, 2021. These expenses include $1,735,841 of expenses for past services for the issuance of warrants to purchase common shares, $513,227 in stock-based compensation, $127,500 of personnel-related costs, $137,209 of professional services and legal related fees, $21,025 in facility and related expenses and $31,630 in other corporate expenses.

Liquidity and Capital Resources

Sources of Liquidity

We have incurred net losses and negative cash flows from operations since our inception and we expect to continue to incur significant and increasing net losses for the foreseeable future. We have principally financed our operations to date through private placements of our common stock. As of June 30, 2022, we had cash of

$2,813,411. We do not have any isotopes approved for sale, we have not generated any revenue from the sale of isotopes, and our ability to generate product revenue sufficient to achieve profitability will depend on the successful development and eventual commercialization of one or more of our current or future isotopes.

Future Funding Requirements

Based on our current operating plan, we estimate that our existing cash, together with the anticipated net proceeds from this offering, will be sufficient to fund our operating expenses and capital expenditure requirements through at least the next 12 months after completion of the offering. However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. We have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we expect. Additionally, the process of developing isotopes is costly, and the timing of progress and expenses in these development activities is uncertain. Should this offering be delayed or not completed, we will not have sufficient cash resources for the ensuing 12 months.

Our future capital requirements will depend on many factors, including:

- the type, number, scope, progress, expansions, results, costs and timing of, our development activities for our future isotopes;
- the outcome, timing and costs of regulatory review of our future isotopes;
- the costs and timing of manufacturing for our future isotopes;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;
- the costs associated with hiring additional personnel and consultants as our preclinical and clinical activities increase;
- the timing and amount of the payments we must make under the Turnkey Contract;
- the costs and timing of establishing or securing sales and marketing and distribution capabilities, whether alone or with third parties, to commercialize future isotopes for which we may obtain regulatory approval, if any;
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements;
- the costs of obtaining, expanding, maintaining and enforcing our patent and other intellectual property rights;
- costs associated with any products or technologies that we may in-license or acquire; and
- if we experience any delays or encounter any issues with any of the above, including the risk of each of which may be exacerbated by the ongoing COVID-19 pandemic.

Developing isotopes is a time-consuming, expensive and uncertain process that takes years to complete, and we may never achieve the necessary results required or obtain applicable regulatory approval for any isotopes or generate revenue from the sale of any future isotopes (assuming applicable regulatory approval is received). In addition, our future isotopes (assuming applicable regulatory approval is received) may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of Mo-100 that we do not expect to be commercially available until at least 2024 and sales of U-235 that we do not expect to be commercially available for at least several years, if ever. As a result, we will need substantial additional financing to support our continuing operations and further the development of and commercialize our future isotopes.

Until such time as we can generate significant revenue from sales of our future isotopes, if ever, we expect to finance our cash needs through public or private equity or debt financings or other capital sources, including potential collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our ability to raise additional funds may be adversely impacted by potential worsening global economic conditions and the recent disruptions to, and volatility in, the credit and financial markets in the United States and worldwide resulting from the ongoing COVID-19 pandemic and otherwise. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise funds through collaborations, or other similar arrangements with third parties, we may have to relinquish valuable rights to our future isotopes, future revenue streams or research programs or may have to grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market our future isotopes even if we would otherwise prefer to develop and market such isotopes ourselves.

Cash Flows

The following table sets forth a summary of our cash flows for the six-month period ended June 30, 2022 and the period from September 13, 2021 (inception) through December 31, 2021:

	Six Months Ended June 30, 2022	For the period from September 13, 2021 (Inception) through December 31, 2021
Cash used in operating activities	$ (1,383,549)	$ (577,692)
Cash used in investing activities	(1,732,595)	(2,988,210)
Cash provided by financing activities	2,850,549	6,500,900
Net (decrease) increase in cash	$ (265,595)	$ 2,934,998

Operating Activities.

Net cash used in operating activities was $1,383,549 for the six months ended June30, 2022 and was primarily due to our net loss of $1,684,758, adjusted for stock-based compensation expense of $231,548 and amortization of right-of-use asset of $37,476, partially offset by a $32,185 change in our operating assets and liabilities.

Net cash used in operating activities was $577,692 for the period from September 13, 2021 (inception) through December 31, 2021, and was primarily due to our net loss of $2,607,927, adjusted for stock-based compensation expense of $513,227, the issuance of warrants to purchase common stock of $1,735,841 and a $218,833 change in our operating assets and liabilities.

Investing activities.

Net cash used by investing activities was $1,732,595 and $2,988,210 for the six months ended June30, 2022 and the period from September 13, 2021 (inception) through December 31, 2021, respectively, and was comprised of construction in progress.

Financing Activities.

Net cash provided by financing activities was $2,850,549 for the six months ended June30, 2022 and was comprised primarily of net proceeds of $2,863,595 from the sale and issuance of 1,559,780 shares of our common stock and the repayment of notes payable of $13,046.

Net cash provided by financing activities was $6,500,900 for the period from September 13, 2021 (inception) through December 31, 2021 and was comprised primarily of net proceeds of $6,454,000 from the sale and issuance of 20,652,500 shares of our common stock in 2021.

Contractual Obligations and Commitments

We lease our research and development facility in Pretoria, South Africa under a lease with base monthly rent payment of approximately $8,000 with a term expiring on December 31, 2030.

As of June 30, 2022, we had commitments of approximately $7.8 million with Klydon for the ongoing development activities under the Turnkey Contract due within approximately 18 months.

In addition, we enter into contracts in the normal course of business with vendors for services and products for operating purposes. These contracts do not contain any minimum purchase commitments and generally provide for termination after a notice period, and, therefore, are not considered long-term contractual obligations. Payments due upon cancellation consist only of payments for services provided and expenses incurred up to the date of cancellation.

Off-Balance Sheet Arrangements

During the period presented we did not have, nor do we currently have, any off-balance sheet arrangements as defined under the rules and regulations of the SEC.

Critical Accounting Policies and Significant Judgments and Estimates

Our financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of our financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, costs and expenses, and the disclosure of contingent assets and liabilities in our financial statements. We base our estimates on historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates and assumptions on a periodic basis. Our actual results may differ from these estimates.

While our significant accounting policies are described in more detail in the notes to our financial statements appearing elsewhere in this prospectus, we believe that the following accounting policies are critical to understanding our historical and future performance, as the policies relate to the more significant areas involving management's judgments and estimates used in the preparation of our financial statements.

Research and Development Costs

As part of the process of preparing our financial statements, we are required to estimate our accrued research and development expenses as of each balance sheet date. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual costs. The majority of our service providers will invoice us in arrears for services performed, based on a pre-determined schedule or when contractual milestones are met, but some require advance payments. We make estimates of our accrued expenses as of each balance sheet date in the financial statements based on facts and circumstances known to us at that time. If timelines or contracts are modified based upon changes in the protocol or scope of work to be performed, we modify our estimates and accruals accordingly on a prospective basis.

We base our expenses related to external research and development services on our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct research and development on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the expense. In accruing service fees, we estimate the

time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, we adjust the accrual or the amount of prepaid expenses accordingly.

Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in reporting amounts that are incorrect in any particular period.

Stock-Based Compensation

On October 3, 2021, our board of directors and stockholders approved the 2021 Plan. Under the 2021 Plan, stock-based awards are measured at fair value and recognized over the requisite service period. Forfeitures are accounted for in the period they occur. We estimate the fair value of each stock-based award on the date of grant using the Black-Scholes option pricing model which requires the input of subjective assumptions:

- *Fair value of common stock.* See the subsection entitled "— Determination of Fair Value of Common Stock" below.
- *Risk-free interest rate.* The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities similar to the expected term of the awards.
- *Expected dividend yield.* We base the expected dividend yield assumption on the fact that we have never paid cash dividends and have no present intention to pay cash dividends and, therefore, used an expected dividend yield of zero.
- *Expected volatility.* Since we are not yet a public company and do not have a trading history for our common stock, the expected volatility assumption is based on volatilities of a peer group of similar companies whose share prices are publicly available. The peer group was developed based on companies in the biotechnology industry. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.
- *Expected life.* The expected life represents the period of time that options are expected to be outstanding. Because we do not have historical exercise behavior, we determine the expected life assumption using the simplified method, for employees, which is an average of the contractual term of the option and its vesting period. The expected term for nonemployee options is equal to the contractual term.

The fair value of our awards for the six months ended June30, 2022 has been estimated using Black-Scholes based on the following assumptions: term of 5.5 to 5.8 years; volatility of 63.0% to 64.5%; risk-free rate of 1.68% – 3.08%; and no expectation of dividends. The fair value of our awards as of December 31, 2021 has been estimated using Black-Scholes based on the following assumptions: term of 5.77 years; volatility of 69.5%; risk-free rate of 1.11%; and no expectation of dividends.

As of June 30, 2022, the unrecognized stock-based compensation expense related to employee stock options was $2,303,866 and is expected to be recognized as expense over a weighted-average period of approximately 2.4 years. The intrinsic value of all outstanding stock options as of June 30, 2022 was approximately $262,500, based on the fair value price of $2.00 per share, of which approximately $58,333 related to exercisable options and approximately $204,167 related to unexercisable options.

Determination of Fair Value of Common Stock

As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors as of the date of each option grant, with input from management, and recent third-party financings consummated by the Company.

Our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, including:

- our stage of development and material risks related to our business;
- the progress of our research and development programs;
- our business conditions and projections;
- our financial position and our historical and forecasted performance and operating results;
- the lack of an active public market for our common stock;
- the prices of our common stock sold to or exchanged between outside investors in arm's length transactions;
- the analysis of initial public offerings and the market performance of similar companies in the isotopes industry;
- the likelihood of achieving a liquidity event, such as an initial public offering or sale of our company in light of prevailing market conditions;
- the hiring of key personnel and the experience of management;
- trends and developments in the isotopes industry; and
- external market conditions and trends affecting the isotopes industry.

Following the closing of this offering, our board of directors will determine the fair market value of our common stock based on its closing price as reported on the date of grant on the primary stock exchange on which our common stock is traded.

Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

As of June 30, 2022 and December 31, 2021, our cash consists of cash in readily available checking accounts. We do not hold any short-term investments. As a result, the fair value of our portfolio is relatively insensitive to interest rate changes. As of June 30, 2022 and December 31, 2021, we had no bank debt outstanding and are therefore not exposed to interest rate risk with respect to debt. We believe a hypothetical 100 basis point increase or decrease in interest rates during the period presented would not have had a material impact on our financial results.

Foreign Currency Risk

Our expenses are generally denominated in U.S. dollars but our operations are currently primarily located outside the United States and we have entered into a number of contracts with vendors that are denominated in foreign currencies. We are subject to foreign currency transaction gains or losses on our contracts denominated in foreign currencies. To date, foreign currency transaction gains and losses have not been material to our financial statements, and we have not had a formal hedging program with respect to foreign currency. We believe a hypothetical 100 basis point increase or decrease in exchange rates during the period presented would not have had a material impact on our financial results.

Effects of Inflation

Inflation generally affects us by increasing our cost of labor and research and development costs. We do not believe that inflation and changing prices had a significant impact on our results of operations for the period presented herein.

Emerging Growth Company and Smaller Reporting Company Status

We are an "emerging growth company" under the JOBS Act, and as such, we can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of accounting standards that have different effective dates for public and private companies until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards, and therefore we will not be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

We will cease to be an emerging growth company prior to the end of such five-year period if certain earlier events occur, including if we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period. In particular, in this prospectus, we have not included all of the executive compensation related information that would be required if we were not an emerging growth company, and we may elect to take advantage of other reduced reporting requirements in future filings.

We are also a "smaller reporting company" as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

BUSINESS

Overview

We are a pre-commercial stage advanced materials company dedicated to the development of technology and processes that, if successful, will allow for the enrichment of natural isotopes into higher concentration products, which could be used in several industries. We have an exclusive license to use proprietary technology, the Aerodynamic Separation Process ("ASP technology"), originally developed and licensed to us by Klydon Proprietary Ltd ("Klydon"), for the production, distribution, marketing and sale of all isotopes. Our initial focus is on the production and commercialization of enriched of Molybdenum-100 ("Mo-100"). Klydon has agreed to provide us a first commercial-scale Mo-100 enrichment plant located in South Africa with a manufacturing capacity of 20 kg/year of 95% enriched Mo-100 when fully operational. We believe that the Mo-100 we may develop using the ASP technology has significant potential advantages for use in the preparation of nuclear imaging agents by radiopharmacies and others in the medical industry. We also intend to use the ASP technology to produce enriched Uranium-235 ("U-235"). We believe that the U-235 we may develop using the ASP technology may be commercialized as a nuclear fuel component for use in the new generation of HALEU-fueled small modular reactors that are now under development for commercial and government uses.

We may also seek to use the ASP technology to separate Silicon-28, which we believe has potential application in the quantum computing target end market, and Carbon-14, which we believe has potential application in the pharma/agrochem target end market. In addition, we are considering future development of the ASP technology for the separation of Zinc-68, Ytterbium-176, Zinc-67, Nickel-64 and Xenon-136 for potential use in the healthcare target end market, and Chlorine -37 and Lithium-6 for potential use in the nuclear energy target end market.

The aerodynamic separation technique has its origins in the South African uranium enrichment program in the 1980s and the ASP technology has been developed during the last 18 years by the scientists at Klydon. In Klydon's testing, the ASP technology has demonstrated efficacy and commercial scalability in the enrichment of oxygen-18 and silicon-28. ASP Isotopes Inc. was incorporated in Delaware in September 2021 to acquire assets and license intellectual property rights related to the production of Mo-100 using the ASP technology. In January 2022 we also licensed intellectual property rights related to the production of U-235 using the ASP technology.

We operate principally through subsidiaries: ASP Isotopes Guernsey Limited (the holding company of ASP Isotopes South Africa (Proprietary) Limited), which will be focused on the development and commercialization of high value, low volume isotopes for highly specialized end markets (such as Mo-100 and others, including Silicon-28); Enriched Energy LLC, which will be focused on the development and commercialization of uranium for the nuclear energy market; and ASP Isotopes UK Ltd, which is the licensee of the ASP technology under the exclusive license agreement with Klydon.

Our Strategy

Complete development and commissioning of Mo-100 enrichment facility located in Pretoria, South Africa.

We intend to complete the development and construction of our first Mo-100 enrichment facility located in Pretoria, South Africa. In October 2021, we acquired physical assets, including equipment, of Molybdos (Pty) Limited (Molybdos) located at the plant after having been declared the winner of a competitive auction process under Section 45 of the *South Africa Consumer Protection Act, 2008* (the Molybdos Business Rescue Auction), and we licensed the ASP technology for the production of Mo-100 from Klydon Proprietary Ltd (Klydon). We subsequently entered into a turnkey contract with Klydon pursuant to which Klydon has agreed to provide us a first commercial-scale Mo-100 enrichment plant. The activities to be undertaken or performed by Klydon include: taking control of the assets acquired by us in the Molybdos Business Rescue Auction; the design of a Mo-100 enrichment facility with a manufacturing capacity of 20 kg/year of 95% enriched Mo-100 when fully operational; the supply of required components, equipment and labor; the installation, testing and commissioning of the Mo-100 enrichment facility, including production of targets to be used by customers in cyclotrons; securing all required approvals, regulatory authorizations and other required consents for the operation of the plant; providing training to local ASP Isotopes South Africa (Proprietary) Limited personnel to enable them to operate the plant going forward; and providing warranties in relation to the performance targets of the plant which are required to be met. Klydon will also be responsible for liaising with the relevant South African authorities including the South African Non

Proliferation Council, the Nuclear Suppliers Group and International Atomic Energy Agency to ensure that the Mo-100 enrichment plant is compliant with international laws and guidelines. We initiated Phase 1 of the Mo-100 development plan under the turnkey contract, targeting 5 kg/year of 95% enriched Mo-100, in October 2021. While we expect to complete this stage in the second half of 2022, it is possible that it may take longer than anticipated to complete due to unexpected delays. Upon completion of Phase 1, we expect to initiate Phase 2, which targets expanded production of up to 20 kg/year of 95% enriched Mo-100. After the commissioning process, which could take 12 months, we expect to commence commercialization of Mo-100 in 2024. While Klydon is responsible for the construction of the enrichment facility, we are responsible for the commercial operation of the enrichment facility, and we expect to recruit the required workforce during 2022.

Demonstrate the capability to produce Mo-100 using the ASP technology and capitalize on the opportunity to solve the Mo-99 supply chain challenges in the existing medical isotope market.

We intend to demonstrate the capability to produce Mo-100 at a scale that can support anticipated customer demand for Mo-100 as alternative and potentially more convenient production route for Tc-99m used in nuclear medical diagnostic procedures. Mo-99's decay product, technetium-99m (Tc-99m), is used in medical procedures to diagnose heart disease and cancer, to study organ structure and function, and to perform other important medical applications. We intend to offer our Mo-100 to customers that may convert Mo-100 into Mo-99 or directly into Tc-99m, and we believe that the use of Mo-100 in this way will be an attractive alternative route to production of Tc-99m for a number of reasons.

- Only a small number of major reactors located around the world (e.g., Australia, Belgium, the Netherlands and South Africa) produce large-scale amounts of Mo-99, and these reactors are taken off-line periodically for refueling and maintenance and go off-line on an unscheduled basis due to the need for extended repairs, which results in a global Mo-99 supply chain that is lengthy, complex and prone to interruption and has experienced supply shortages. Customers that could use and stockpile Mo-100 would not have to manage the periodic shortages and supply chain challenges related to Mo-99.
- Mo-99 (a radioisotope with a 66-hour half-life) decays and loses activity in transit, so it must be moved through the supply chain quickly to minimize decay losses and it cannot be stockpiled. Mo-100 (a stable isotope of molybdenum that does not decay) will not decay in transit, so the supply chain would not be dependent on elapsed time from production of Mo-100 to the delivery of a Tc-99m dose to a hospital or clinic.
- Mo-99 (with decay product Tc-99m) must be shipped in shielded transport containers that comply with the regulatory requirements for safe transport of radioactive material. Mo-100 is stable (non-radioactive) and therefore does not have the same handling and shipping requirements.

Mo-100 produced using ASP technology could support an alternative and potentially more convenient production route for Tc-99m.

We believe that Mo-100 that we may produce using the ASP technology is well-positioned to provide an alternative route to producing Tc-99m. Customers will be able to convert Mo-100 into Mo-99 using a cyclotron or a linear accelerator. The Mo-99 can then be converted into Tc-99m using a technetium generator, which is currently the standard method used by hospitals and healthcare providers to obtain their Tc-99m. It is highly likely that the technetium generator used in this process will require some modifications, relative to the technetium generators currently available. These modified technetium generators will require approval from healthcare regulators. Currently, three potential customers are in the advanced stages of this regulatory approval process for a modified generator with relevant healthcare regulators. Customers could also convert Mo-100 directly into Tc-99m using a cyclotron, which would eliminate the need for a technetium generator. To date, only one healthcare regulator (Health Canada) has approved the use of Tc-99m that has been directly produced from Mo-100 in a low powered cyclotron. We believe it is likely that healthcare regulators in other countries will also require clinical data to support the use of Tc-99m that is produced directly from Mo-100.

Continue identifying potential offtake customers and strategic partners for Mo-100.

We have already seen significant interest from potential offtake customers for Mo-100 that we may produce using the ASP technology. We have had or are currently in active dialogue or entered into non-binding LOIs with six potential offtake customers that could use the entire anticipated annual capacity of the initial plant. In addition, to support our efforts in identifying potential customers in China, we have entered into a consulting and sales

commission agreement with a strategic advisor. We expect to enter into similar consulting and sales commission agreements with other individuals and entities in the future in the ordinary course of business. Globally, there are potentially hundreds of potential offtake customers with varying demands from a few grams to kilogram quantities. We plan to continue identifying new potential offtake customers, with the assistance of strategic advisors where helpful, for our Mo-100 with a view to securing additional volume for future Mo-100 enrichment plants.

Demonstrate the capability to produce high-assay low-enriched uranium (HALEU) using the ASP technology and meet anticipated demand for the new generation of HALEU-fueled small modular reactors and advanced reactor designs that are now under development for commercial and government uses.

We plan to begin the enrichment of uranium to demonstrate our capability to produce HALEU using the ASP technology. We anticipate a future demand for HALEU for the new generation of HALEU-fueled small modular reactors (SMRs) and advanced reactor designs that are now under development for commercial and government uses. SMRs are viewed as being cheaper, safer, and more versatile than traditional large scale nuclear reactors and development of the new technology is receiving considerable funding from the U.S. Department of Energy, as well as from the governments of other countries. There is currently no commercial production of HALEU in the United States and there has been a reliance on delivery from other countries, particularly Russia. We are currently conducting a feasibility study with respect to constructing an enrichment facility in either the United States or an international location. We would need to obtain approval of the U.S. Nuclear Regulatory Commission to produce HALEU in a U.S.-based facility.

Our Strengths

ASP technology developed by Klydon.

The aerodynamic separation technique has its origins in the South African uranium enrichment program in the 1980s and the ASP technology has been developed during the last 18 years by the scientists at Klydon. To date, the scientists at Klydon have constructed two ASP plants for the enrichment of oxygen-18 and silicon-28 in Pretoria, South Africa, which were commissioned in October 2015 and July 2018, respectively, and remain fully operational. While the technology has not yet been used to enrich either Molybdenum or Uranium, we believe the success of the enrichment process for oxygen-18 and silicon-28 has demonstrated the efficacy and commercial scalability of the ASP technology from laboratory to commercial. We have exclusive worldwide licenses from Klydon for the production of Mo-100 and U-235 and, if our research and development is successful (and subject to obtaining applicable regulatory approvals and appropriate licenses), we plan to commercialize Mo-100 and U-235 produced using the ASP technology. To date, we have not built a functioning Mo-100 or U-235 enrichment plant or even demonstrated the ability to produce Mo-100 or U-235 using the ASP technology.

High barriers to entry.

We have exclusive worldwide licenses to the ASP technology for the production of Mo-100 and U-235. Klydon has spent the last 18 years and tens of millions of dollars developing the aerodynamic separation technique used in the ASP technology, generating critical trade secrets. We believe our competitors lag behind us in terms of the technical expertise of our senior management and the know-how contained in the aerodynamic separation technique, and will be unable to replicate the expected results of the ASP technology, even as we expect to continue to improve the existing technology and processes. Additionally, the high capital costs of development of proprietary technologies, significant lead times required to construct new enrichment facilities, as well as stringent regulatory and operating requirements applicable to enrichment facilities, adds to the significant barriers to entry for smaller competing market participants.

ASP technology is a flexible platform with the potential to produce HALEU that could serve a large addressable market.

ASP technology is a flexible platform, compact in size and weight, and easily scaled to industrial level with number of separation devices added in parallel. The ASP technology also has few moving parts, with low capital and operating costs in comparison to alternatives. We believe that, assuming receipt of required regulatory approvals and governmental permits, the ASP technology can be deployed quickly and with a relatively minimal capital cost, which offers better speed-to-market dynamics for HALEU produced using ASP technology than our competitors. We believe that the ASP technology is well-positioned to address a substantial global HALEU market that is contemplating a transition from petroleum-based energy to energy produced in a new generation of HALEU-fueled SMRs and advanced reactors.

ASP technology is designed to be low cost, low energy, and environmentally friendly.

We are completing the development of our first Mo-100 enrichment facility utilizing the ASP technology located in Pretoria, South Africa. The ASP technology is designed to be scalable, low cost, low energy, and environmentally friendly, with no radioactive waste or hazardous materials produced in the process and planned arrangements to reuse chemical byproducts. The enrichment plant is initially targeting 5 kg/year of 95% enriched Mo-100 and then expanded production of up to 20 kg/year of 95% enriched Mo-100. If successful, we believe we will have the opportunity to offer customers an alternative and potentially more convenient production route for Tc-99m used in nuclear medical diagnostic procedures. If successful, we believe we will have opportunities to shorten the existing supply chain and reduce international transportation of radioactive material for nuclear medical diagnostic procedures.

Experienced team

Our board of directors and advisers have specialized expertise in isotopes enrichment, R&D, technology, plant development and manufacturing. Dr Einar Ronander, who serves as Chief Scientific Adviser to our board of directors, and Dr Hendrik Strydom, one of our directors, previously co-founded and currently serve as Executive Chairperson and Chief Executive Officer, respectively, of Klydon. Prior to founding Klydon, Dr Ronander and Dr Strydom worked at the South African Atomic Energy Corporation (AEC) focusing on uranium laser enrichment. The scientific team at Klydon combined has decades of experience in research and development of isotopes enrichment and amassed deep knowledge in the field. The Klydon team's knowledge of isotopes enrichment underpins our research and discovery efforts under the turnkey contract with Klydon.

Our board of directors and our management team also has broad experience and successful track records in biopharmaceutical research, chemicals, manufacturing and commercialization, as well as in business, operations, and finance. Our board of directors' and management team's experience was gained at leading companies and financial institutions that include, Barclays Capital, Coty Inc, Deutsche Bank, Highbridge Capital, La Perla Beauty Ltd, Lehman Brothers, LyondellBasell and Morgan Stanley.

Technical Background

What are Isotopes?

Isotopes are two or more types of atoms that have the same atomic number (number of protons in their nuclei) and position in the periodic table (and hence belong to the same chemical element), and that differ in nucleon numbers (mass numbers) due to different numbers of neutrons in their nuclei. While all isotopes of a given element have almost the same chemical properties, they have different atomic masses and physical properties.

The number of protons within the atom's nucleus is called atomic number and is equal to the number of electrons in the neutral (non-ionized) atom. Each atomic number identifies a specific element, but not the isotope; an atom of a given element may have a wide range in its number of neutrons. The number of nucleons (both protons and neutrons) in the nucleus is the atom's mass number, and each isotope of a given element has a different mass number. For example, carbon-12, carbon-13, and carbon-14 are three isotopes of the element carbon with mass numbers 12, 13, and 14, respectively. The atomic number of carbon is6, which means that every carbon atom has 6 protons so that the neutron numbers of these isotopes are 6, 7, and 8 respectively.

There are 23 isotopes of Silicon, all of which have 14 protons and 14 neutrons but have between 8 and 30 neutrons. The table below shows a selection of those isotopes. Three isotopes are stable which have mass numbers of 28, 29 and 30 which have 14, 15 and 16 neutrons respectively. The other 20 isotopes are radioactive and decay with short half lives and are therefore do not typically exist in naturally occurring silicon. In naturally occurring silicon, the isotope with atomic mass of 28 is usually the most abundant, typically accounting for approximately 92.22% of the material. The isotope with atomic mass of 29 typically accounts for 4.69% of the material and the isotope with atomic mass of 30 typically accounts for 3.09% of the material.

Molybdenum has 33 known isotopes, ranging in atomic mass from 83 to 115, as well as four metastable nuclear isomers. Seven isotopes occur naturally, with atomic masses of 92, 94, 95, 96, 97, 98, and 100. All unstable isotopes of molybdenum decay into isotopes of zirconium, niobium, technetium, and ruthenium.

Uranium is a naturally occurring radioactive element that has no stable isotope. It has two primordial isotopes, uranium-238 and uranium-235, which have long half-lives and are found in appreciable quantity in the Earth's crust. The decay product, uranium-234 is also found. Other isotopes such as uranium-233 have been produced in breeder reactors. In addition to isotopes found in nature or nuclear reactors, many isotopes with far shorter half-lives have been produced, ranging from U-214 to U-242 (with the exception of U-220 and U-241). The standard atomic weight of natural uranium is 238.02891 with 99.27% of naturally occurring uranium being the isotope with an atomic mass of 238.051.

Selected isotopes of Silicon						**Selected isotopes of Molybdenum**						**Selected isotopes of Uranium**					
Nuclide	**Protons**	**Neutrons**	**Isotopic Mass**	**Half Life**	**Natural abundance**	**Nuclide**	**Protons**	**Neutrons**	**Isotopic Mass**	**Half Life**	**Natural abundance**	**Nuclide**	**Protons**	**Neutrons**	**Isotoopic Mass**	**Half Life**	**Natural abundance**
22	14	8	22.036	29 ms		91	42	49	90.912	15.49 min		225	92	133	225.029	62 ms	
23	14	9	23.025	42.3 ms		92	42	50	91.907	Stable	14.65%	226	92	134	226.029	269 ms	
24	14	10	24.012	140 ms		93	42	51	92.907	4000 y		227	92	135	227.031	1.1 m	
25	14	11	25.004	220 ms		94	42	52	93.905	Stable	9.19%	228	92	136	228.031	9.1 m	
26	14	12	25.992	2.245 s		95	42	53	94.906	Stable	15.87%	229	92	137	229.034	57.8 m	
27	14	13	26.987	4.15 s		96	42	54	95.905	Stable	16.67%	230	92	138	230.034	20.23 d	
28	14	14	27.977	Stable	92.22%	97	42	55	96.906	Stable	9.58%	231	92	139	231.036	4.2 d	
29	14	15	28.977	Stable	4.69%	98	42	56	97.905	Stable	24.29%	232	92	140	232.037	68.9 y	
30	14	16	29.974	Stable	3.09%	99	42	57	98.908	2.75 d		233	92	141	233.04	1.592 e5 y	Trace
31	14	17	30.975	157.36 min		100	42	58	99.907	Stable	9.74%	234	92	142	234.041	2.455 e5 y	Trace
32	14	18	31.974	153 y	trace	101	42	59	100.910	14.61 m		235	92	143	235.044	7.038 e8 y	0.72%
33	14	19	32.978	6.18 s		102	42	60	101.910	11.3 m		236	92	144	236.046	2.342 e7 y	Trace
34	14	20	33.979	2.77 s		103	42	61	102.913	67.5 s		237	92	145	237.049	6.752 d	Trace
35	14	21	34.985	780 ms		104	42	62	103.914	60 s		238	92	146	238.051	4.468 e9 y	99.27%
36	14	22	35.987	450 ms		105	42	63	104.917	35.6 s		239	92	147	239.054	23.45 m	
37	14	23	36.993	90 ms		106	42	64	105.918	8.73 s		240	92	148	240.057	14.1 h	Trace
38	14	24	37.996	90 ms		107	42	65	106.922	3.5 s		242	92	150	242.063	16.8 m	

Methods of Separation and Enrichment of Isotopes

Isotope enrichment is the process of concentrating specific isotopes of a chemical element by removing other isotopes. During the last century, a number of different methods have been developed to separate and enrich isotopes. The current separation or enrichment processes are based either on the atomic weight of the isotope, small differences in chemical reaction rates produced by different atomic weights or are based on properties not directly connected to atomic weight such as nuclear resonances.

Diffusion

Often performed on gases, but also on liquids, the diffusion method relies on the fact that in thermal equilibrium, two isotopes with the same energy will have different average velocities. The lighter atoms (or the molecules containing them) will travel more quickly and be more likely to diffuse through a membrane. The difference in speeds is proportional to the square root of the mass ratio, so the amount of separation is small and many cascaded stages are needed to obtain high purity. This method is expensive due to the work needed to push gas through a membrane and the many stages necessary.

Centrifugal

Centrifugal methods rapidly rotate the material allowing the heavier isotopes to go closer to an outer radial wall. This too is often done in gaseous form using a Zippe-type centrifuge.

A Zippe-type centrifuge relies on the force resulting from centripetal acceleration to separate molecules according to their mass, and can be applied to most fluids. The dense (heavier) molecules move towards the wall and the lighter ones remain close to the center. The centrifuge consists of a rigid body rotor rotating at full period at high speed. Concentric gas tubes located on the axis of the rotor are used to introduce feed gas into the rotor and extract the heavier and lighter separated streams. For U-235 production, the heavier stream is the waste stream and the lighter stream is the product stream. Modern Zippe-type centrifuges are tall cylinders spinning on a vertical axis, with a vertical temperature gradient applied to create a convective circulation rising in the center and descending at the periphery of the centrifuge. Diffusion between these opposing flows increases the separation by the principle of countercurrent multiplication.

In practice, since there are limits to how tall a single centrifuge can be made, several such centrifuges are connected in series. Each centrifuge receives one input and produces two output lines, corresponding to light and heavy fractions. The input of each centrifuge is the output (light) of the previous centrifuge and the output (heavy) of the following stage. This produces an almost pure light fraction from the output (light) of the last centrifuge and an almost pure heavy fraction from the output (heavy) of the first centrifuge.

Electromagnetic

Electromagnetic separation is mass spectrometry on a large scale, so it is sometimes referred to as mass spectrometry. It uses the fact that charged particles are deflected in a magnetic field and the amount of deflection depends upon the particle's mass. It is very expensive for the quantity produced, as it has an extremely low throughput, but it can allow very high purities to be achieved. This method is often used for processing small amounts of pure isotopes for research or specific use (such as isotopic tracers), but is impractical for industrial use.

Laser

In this method, a laser is tuned to a wavelength which excites only one isotope of the material and ionizes those atoms preferentially. The resonant absorption of light for an isotope is dependent upon its mass and certain hyperfine interactions between electrons and the nucleus, allowing finely tuned lasers to interact with only one isotope. After the atom is ionized it can be removed from the sample by applying an electric field. This method is often abbreviated as AVLIS (atomic vapor laser isotope separation). This method has only recently been developed as laser technology has improved, and is currently not used extensively.

Chemical Methods

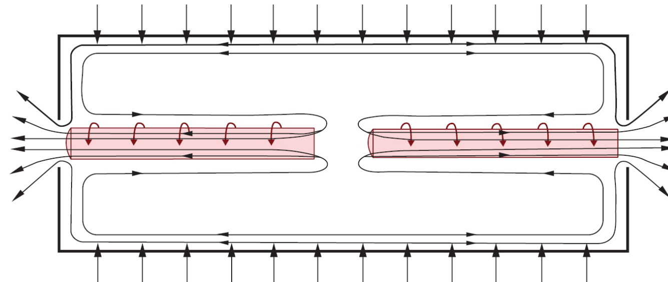
Although isotopes of a single element are normally described as having the same chemical properties, this is not strictly true. In particular, reaction rates are very slightly affected by atomic mass. Techniques using this are most effective for light atoms such as hydrogen. Lighter isotopes tend to react or evaporate more quickly than heavy isotopes, allowing them to be separated. This is how heavy water is produced commercially

Gravity

Isotopes of carbon, oxygen, and nitrogen can be purified by chilling these gases or compounds nearly to their liquefaction temperature in very tall (200 to 700 feet (61 to 213 m)) columns. The heavier isotopes sink and the lighter isotopes rise, where they are easily collected.

The Aerodynamic Separation Process (ASP) Technology

ASP technology is proprietary technology licensed from Klydon which succeeds earlier work, first detailed in the scientific media in the mid-1970s, relating to an industrial scale enrichment plant for uranium that was constructed utilizing the so-called "stationary-wall centrifuge". The original technology was highly energy consuming and was not able to compete on an economic basis with other methods of isotope separation. The innovative development of the ASP technology over the past 18 years has culminated in a more advanced separation device that we believe can compete on a commercial scale with other methods of isotope separation. The ASP separation device separates both gas species and isotopes in a volatile state via an approximate flow pattern as shown below.



Gas flow pattern inside ASP separation device.

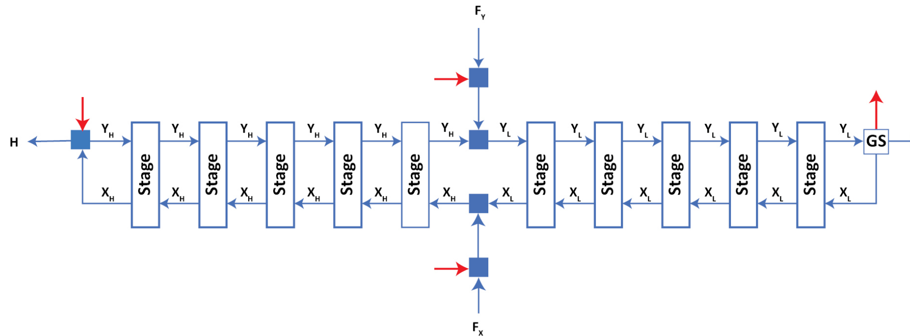
The ASP enrichment process uses an aerodynamic technique similar to a stationary wall centrifuge. The isotope material in raw gas form enters the stationary tube at high speed by tangential injection through finely placed and sized openings in the surface of the tube. The gas then follows a flow pattern that results in two gas vortexes occurring around the geometrical axis of the separator. The isotope material becomes separated in the radial dimension as a result of the spin speed of the isotope material reaching several hundred meters per second. An axial mass flow component in each tube feeds isotope material to the respective ends of the separator where the collection of the portions of isotope material is accomplished.

The advantages of ASP technology are as follows:

- No moving parts, with low capital and operating costs in comparison to alternatives.
- Compact in size and weight.
- Easily scaled to industrial level with number of separation devices added in parallel.
- The separation process occurs inside a closed cylindrical container and is a volume technology, i.e., the process efficiency is not affected by poisoning of surface contaminates as is the case for surface separation processes.
- ASP operates very efficiently at molecular masses below 100 atomic mass units, unlike other separation processes which are more efficient higher masses, which ASP can achieve equally well or to a superior degree.
- ASP easily separates hydrogen gas from other gas components, e.g., harvesting hydrogen gas from carbon monoxide and carbon dioxide and altering the ratio of syngas mixture.
- With the right material choice ASP handles even the most corrosive gases.
- ASP can separate any isotopes that have a gaseous or volatile chemical compound.
- Most of the subsystems are procured from off-the-shelf components.
- An ASP plant can be constructed in any country that adheres to the International Atomic Energy Agency (IAEA) protocols for the protection of dual use technology.

ASP Plant Configuration

The figure below shows a schematic of an ASP cascade in operation. The cascade consists of several enrichment stages, connected in a 1-up-1-down cascade configuration. The stages can be grouped into segments. (This method of organizing stages is not reflected in the figure)



The bold blue arrows represent flows of the element into and out of the cascade:

- H is the product, enriched in the isotope
- L is the tails, stripped of the isotope
- F = FX + FY is the feed stream at natural isotopic composition:
- FX is the feed into the product stream of an adjoining stage.
- FY is the feed into the tails stream of an adjoin

Each stage in the cascade is operated in one of two configurations:

(1) A net backward flow of the isotope: Xi > Yi. These stages are referred to as “product”, situated in the so-called “product cascade section”, and their flows are marked with an “H” subscript.

(2) A net forward flow of isotope: Xi < Yi. These stages are referred to as “tails”, situated in the so-called “tails cascade section”, and their flows are marked with an “L” subscript.

The red arrows represent the addition or extraction of carrier gas from the process. The arrows have been added for clarity and orientation, but the mass flows of the carrier gas will be ignored in the rest of the discussion as it pertains to the isotope mass flows only (as represented by the blue arrows). The carrier gas mass flows can be superimposed on any isotope mass balance using the molar mass characteristics of the ASP stages (see below).

The block marked “GS” represents the gas separator: a piece of equipment used to separate the carrier gas from the element of interest to the degree necessary to provide a suitable reflux stream to the tails cascade section.

The blue squares are simply suitable areas where streams can be split or mixed.

An ASP stage is characterized by functions of Y, the flow of isotope in its tails stream. The characteristics of interest are:

- α(Y): the separation factor between the tails and product streams.
- MY(Y): the molar mass of the tails stream.
- MX(Y): the molar mass of the product stream.
- P(Y): the stage’s power usage.
- X(θ,Y): the flow of Zinc in the product stream, where θ = Y/(X+Y) is the cut defined in terms of isotope flows.

Note the following:

- α is the ratio of the tails and product stream abundance ratios.
- Y, X(θ,**Y**) and **α**(Y) describe the stage’s behaviour with regards to Zinc, while MY(Y) and MX(Y) defines its behaviour with regards to the carrier gas.
- P, the stage’s power usage, depends on the ASP separator, but also on factors such as compressor efficiency, friction losses etc. It is therefore a partial function of stage design.
- It is possible to define Pmin, the theoretical minimum energy usage of a stage, by assuming 100% efficient compressors and no losses in the stage. Pmin is a function of the ASP separator only. In practice P is a more useful metric, as the contribution of compressor inefficiencies to power consumption is significant.
- Except for X, the stage’s characteristics are not defined in terms of the cut θ, as they are simply not sensitive to it above a certain lower limit θmin. In practice θmin is small enough that it has no influence on the normal operating envelope of the stage.
- X is per definition a function of Y via θ as indicated.

The cut of an ASP stage can be dynamically adjusted to any value larger than **θmin**, allowing its operating point to be changed online during production.

All stages in the product cascade section are operated at the same point < XH,YH >, where XH > YH, ensuring that a net backward flow of the process element, H = XH — YH is achieved. This corresponds to a cut of less than 50% and ensures a positive flow of enriched product.

All stages in the tails cascade section are operated at the same point < XL,YL >, where XL < YL, ensuring that a net backward flow of the process element, L = XL — YL is achieved. This corresponds to a cut of more than 50% and ensures a positive flow of stripped tails.

Depending on the production requirements of the cascade the product and tails section operation points can be moved relative to each other during production, obtaining different combinations of H and L (and therefore different feeds F = H + L). The smaller H (or L) is chosen, the closer the product (or tails) section cut moves to 50%. If all stages are operated at a cut of 50%, the cascade is operated at full reflux, no product, tails, or feed streams are present, and the maximum process element concentration gradient will exist.

ASP Technology In Use

To date, the scientists at Klydon have constructed two ASP plants for the enrichment of oxygen-18 and silicon-28 in Pretoria, South Africa, which were commissioned in October 2015 and July 2018, respectively, and remain fully operational. We believe the success of the enrichment of oxygen-18 and silicon-28 has demonstrated the efficacy and commercial scalability of the ASP technology. We are currently constructing a Mo-100 enrichment plant, which, if successful, will produce Mo-100 for use in the preparation of nuclear imaging agents by radiopharmacies and others in the medical industry.

Nuclear Medicine

Nuclear medicine is a medical specialty that utilizes radioactive isotopes, referred to as radionuclides, to diagnose and treat disease. These radionuclides are incorporated into radiopharmaceuticals and introduced into the body by injection, swallowing, or inhalation. Physiologic/metabolic processes in the body concentrate the tracers in specific tissues and organs; the radioactive emissions from the tracers can be used to noninvasively image these processes or kill cells in regions where radionuclides have concentrated.

Other types of noninvasive diagnostic procedures — for example, computed tomography (CT) and magnetic resonance imaging (MRI) — can detect anatomical changes in tissues and organs as the result of disease. Nuclear medicine procedures can often detect the physiological and metabolic changes associated with disease before any anatomical changes occur. Such procedures can be used to identify disease at early stages and evaluate patients' early responses to therapeutic interventions.

Single Photon Emission Computed Tomography (SPECT) generates three-dimensional (3D) images of tissues and organs using radionuclides that emit gamma rays; the most used radionuclide is Technitium-99m (Tc-99m), often referred to as the 'work-horse' of nuclear medicine. Individual gamma rays emitted from the decay of these radionuclides (i.e., single photon emissions) are detected using a gamma camera. This camera technology is used to obtain two-dimensional (2D) images; 3D SPECT images are computer generated from many 2D images recorded at different angles.

Positron Emission Tomography (PET) generates 3D images of tissues and organs using tracers that emit positrons (i.e., positive electrons): for example, fluorine-18 (F-18). Annihilation reactions between the positrons from these radionuclides and electrons present in tissues and organs produce photons. (Two photons are emitted simultaneously for each annihilation reaction and essentially travel in opposite directions.) The photon pairs are detected with a camera having a ring of very fast detectors and electronics. PET images generally have a higher contrast and spatial resolution than do SPECT images. However, PET equipment is more expensive and therefore not as widely available as SPECT equipment. Additionally, most PET tracers have short half-lives (e.g., nitrogen-13 (N-13): 10 minutes, carbon-11 (C-11): 20 minutes, and F-18: 110 minutes), so they must be produced close to their point of use.

Technetium-99m (Tc-99m)–the most widely used radioisotope in Nuclear Imaging

Tc-99m is used in approximately 80 percent of all nuclear medicine procedures performed worldwide each year.

Tc-99m is a particularly useful imaging radionuclide because it:

- Has a sufficiently long half-life (~6 hours) to be usable in nuclear medicine procedures.
- Emits energetic gamma rays (140 kiloelectron volts [keV]) that can be detected efficiently with widely available camera technologies.
- Provides low patient doses for some procedures because of its short half-life and lack of alpha or beta radiations

Tc-99m-based radiopharmaceuticals are used to diagnose disease in many tissue and organ systems, including bone, brain, heart, kidneys, liver, and lungs. About 50 percent of Tc-99m utilization in the United States is in nuclear cardiology, predominantly for myocardial perfusion imaging which images blood flow through heart muscle.

Because Tc-99m has a half life of just 6 hours, it cannot be stored or shipped long distances and it is currently produced using a technetium generator, which contains Molybdenum-99 which has a half-life of about 66-hours. In the reactor, Mo-99 decays to Tc-99m by emitting a beta particle (an electron). About 88 percent of the decays produce Tc-99m, which subsequently decays to the ground state, Tc-99g, by emitting a gamma ray. About 12 percent of the decays produce Tc-99g directly. Tc-99g decays to stable (i.e., nonradioactive) ruthenium-99 (Ru-99) after emitting a beta particle.

Technetium generators are systems that store Mo-99 and allow its decay product, Tc-99m, to be recovered for use. Most technetium generators are designed to be used with high-specific-activity Mo-99 (>1,000 Ci/g) produced by U-235 fission. The generator consists of an alumina (Al2O3) column having the diameter of a large pencil along with associated filters and tubing for obtaining Tc-99m

This apparatus is installed into radiation-shielded packages for shipment to Tc-99m suppliers. The generator includes both the package and its contained apparatus. Technetium generators can contain from 1 to 19 Ci of Mo-99, matched to address the needs and workloads of Tc-99m suppliers

It takes 18-24 hours to prepare technetium generators for shipment. Preparation involves loading the molybdate solution onto the columns and sterilizing them; installing the columns, tubing, and filters into the shielded generator package; and packaging the generators for shipment. Tc-99m generators are typically shipped to Tc-99m suppliers within a day of their manufacture. Generators are shipped in regulatory-compliant boxes. The delivery methods can be air, ground, or a combination of both depending on customer location and contracted transportation network.

The Mo-99 Market

The global medical community depends on a reliable supply of the radioisotope Mo-99 for nuclear medical diagnostic procedures. As previously described, Mo-99's decay product, technetium-99m (Tc-99m), is used in over 40,000 medical procedures in the United States each day to diagnose heart disease and cancer, to study organ structure and function, and to perform other important medical applications.

In 2020, it is estimated (by Future Market Insights Inc, a global market research firm), that the Molybdenum 99 market generated revenues of approximately $3.8 billion. North America accounted for almost half of the Mo-99 demand. Approximately 62% of Mo-99 was used in hospitals while approximately 38% of Mo-99 use was in diagnostic centers.

The Mo-99 Supply Chain

The global Mo-99 supply chain is inherently fragile. The fragility stems primarily from two factors:

1. Mo-99 and its daughter isotope Tc-99m have short half-lives (66 and 6 hours, respectively) and therefore cannot be stockpiled. These radioisotopes need to be produced and delivered to the supply chain on a weekly or more frequent basis.
2. Global supply of Mo-99 currently relies on a small number of aging reactors worldwide and a small number of suppliers.

The current Mo-99 supply chain is also lengthy and prone to interruption throughout its course.

Recent Government Efforts to Increase Mo-99 Availability

Given the regular supply side shortages in the Mo-99 market, and widely anticipated shutdown of many of the current reactors, there is considerable focus on alternative methods of Tc-99m production. In 2012, Congress passed the American Medical Isotopes Production Act (AMIPA), which directed the National Nuclear Security Administration (NNSA) to establish a technology-neutral program to support the establishment of domestic supplies of Mo-99 without the use of HEU. NNSA has implemented this by competitively awarding 50%/50% cost-shared cooperative agreements to commercial entities and providing funds to the Department of Energy's (DOE) National Laboratories to support development of non-HEU Mo-99 production technologies.

NNSA currently manages cooperative agreements with three U.S. companies, all developing diverse Mo-99 production technologies:

- NorthStar Medical Radioisotopes, LLC (Beloit, Wisconsin)
  - Neutron capture technology using molybdenum-98 targets
  - Accelerator-based technology using molybdenum-100 targets
- SHINE Technologies, LLC (Janesville, Wisconsin)
  - Accelerator with fission technology to produce Mo-99 with an LEU solution target
- Niowave, Inc. (Lansing, Michigan)
  - Superconducting electron linear accelerator with fission technology to produce Mo-99 with LEU targets

Mo-100 as an Alternative Intermediate to Produce Mo-99 and Tc-99m

Mo-100 is a stable isotope of molybdenum that does not decay. Naturally occurring molybdenum contains approximately 9.74% molybdenum-100. When highly enriched so that the Molybdenum contains >95% of the Mo-100 isotope, it can be used to produce either Mo-99 or Tc-99 via either photon-induced transmutation of Mo-100 into Mo-99 or via proton bombardment of Mo-100 into Tc-99m. The use of particle accelerators for the production of Mo-99 and direct production of Tc-99m has been studied extensively and the use of a particle accelerator conveys certain advantages and disadvantages. Accelerators produce ion beams and accelerate ions to higher energies by using oscillating electromagnetic fields. The accelerated particle beams have the capability of irradiating specific targets to produce Mo-99 and/or Tc-99m.

We intend to offer our Mo-100 to customers that may convert Mo-100 into Mo-99 or Mo-100 directly into Tc-99m. We believe that customers will be able to convert Mo-100 into Mo-99 using a cyclotron or a linear accelerator. The Mo-99 can then be converted into Tc-99m using a technetium generator. The technetium generators that are currently available will likely require some modifications in order to use the Mo-99 that has been produced via a cyclotron or a linear accelerator. These modifications will likely mean that new generator will require approval by healthcare regulators such as the Food and Drug Administration (FDA) in the United States and the European Medicines Agency (EMA) in Europe.

Customers may convert Mo-100 directly into Tc-99m using a cyclotron, which would eliminate the need for a technetium generator. To date, only one healthcare regulator (Health Canada) has approved the use of Tc-99m that has been directly produced from Mo-100 in a low powered cyclotron. We believe it is likely that healthcare regulators in other countries will also require clinical data to support the use of Tc-99m that is produced directly from Mo-100.

We expect limited commercial activity for Mo-100 in the United States during the next two to three years and we anticipate that most of our initial revenues from future sales of our Mo-100 will be derived from countries in Asia and EMEA (Europe, Middle East and Africa).

Our Mo-100 Enrichment Facility

We are currently constructing a dedicated Mo-100 enrichment facility. The facility is located in Pretoria, South Africa and when complete, should be capable of enriching Mo-100 from its natural abundance of 9.7% to greater than 95%. At a level of 95% enrichment, the facility should be capable of producing 5 Kg of product initially. We expect to be able to expand the capacity of the plant for approximately $6m of capex and when expanded the plant should be capable of producing 20 Kg of enriched product (at 95% enrichment). A higher level of enrichment would result in a lower production capacity and a lower level of enrichment would result in a greater production capacity. It is likely that we can achieve premium selling prices at higher levels of enrichment.

Work on the plant originally started in 2016 but construction was halted in 2020 and 2021 due to a lack of funding. At that time, the plant was owned by a company called Molybdos (Pty) Limited. We acquired the assets of Molybdos during a business rescue process that involved a contested auction.

We currently expect the plant to be mechanically completed to an annual capacity of 5 Kg per year by the end of 2022. We currently expect to spend 2023 commissioning the plant and seeking regulatory approval with applicable regulators around the world.

ASP Technology for Uranium Enrichment

We believe our ASP technology is also capable of enriching Uranium, which we may be able to commercialize as a nuclear fuel component for use in the new generation of HALEU-fueled small modular reactors that are now under development for commercial and government uses.

Uranium is a naturally occurring element and is mined from deposits located in Kazakhstan, Canada, Australia, and several other countries including the United States. According to the World Nuclear Association (“WNA”), there are adequate measured resources of natural uranium to fuel nuclear power at current usage rates for about 90 years. In its natural state, uranium is principally comprised of two isotopes: uranium-235 (“U-235”) and uranium-238 (“U-238”). The concentration of U-235 in natural uranium is only 0.711%by weight. Most commercial nuclear power reactors require LEU fuel with a U-235 concentration greater than natural uranium and up to 5% by weight. Future reactor designs currently under development will likely require higher U-235 concentration levels of up to 20%. Uranium enrichment is the process by which the concentration of U-235 is increased (see discussion on HALEU demand below).

Separative work units (“SWU”) are a standard unit of measurement that represents the effort required to transform a given amount of natural uranium into two components: enriched uranium having a higher percentage of U-235 and depleted uranium having a lower percentage of U-235. The SWU contained in LEU is calculated using an industry standard formula based on the physics of enrichment. The amount of enrichment deemed to be contained in LEU under this formula is commonly referred to as its SWU component and the quantity of natural uranium deemed to be contained in LEU under this formula is referred to as its uranium or “feed” component. Currently, it is fairly common practice to purchase both the SWU and uranium components of LEU from the enrichment company. Therefore, LEU prices typically consist of two prices or components: SWU and uranium.

The following outlines the steps for converting natural uranium into LEU fuel, commonly known as the nuclear fuel cycle:

- ***Mining and Milling.*** Natural, or unenriched, uranium is removed from the earth in the form of ore and then crushed and concentrated.
- ***Conversion.*** Uranium ore concentrates (“UO”) are combined with fluorine gas to produce uranium hexafluoride (“UF”), a solid at room temperature and a gas when heated. UF is shipped to an enrichment plant.
- ***Enrichment.*** UF is enriched in a process that increases the concentration of the U isotope in the UF from its natural state of 0.711% up to 5%, or LEU, which is usable as a fuel for current light water commercial nuclear power reactors. Future commercial reactor designs may use uranium enriched up to 20% U, or HALEU.
- ***Fuel Fabrication.*** LEU is then converted to uranium oxide and formed into small ceramic pellets by fabricators. The pellets are loaded into metal tubes that form fuel assemblies, which are shipped to nuclear power plants. As the advanced reactor market develops, HALEU may be converted to uranium oxide, metal, chloride or fluoride salts, or other forms and loaded into a variety of fuel assembly types optimized for the specific reactor design.
- ***Nuclear Power Plant.*** The fuel assemblies are loaded into nuclear reactors to create energy from a controlled chain reaction. Nuclear power plants generate approximately 20% of U.S. electricity and 10% of the world’s electricity.
- ***Used Fuel Storage.*** After the nuclear fuel has been in a reactor for several years, its efficiency is reduced and the assembly is removed from the reactor’s core. The used fuel is warm and radioactive and is kept in a deep pool of water for several years. Many utilities have elected to then move the used fuel into steel or concrete and steel casks for interim storage.

The World is Transitioning to Newer Smaller Reactors

As the world transitions to a decarbonized electric grid, society is gradually decreasing its reliance on fossil fuels and increasing its reliance on “clean energy”. There appears to be bipartisan support for the growth of nuclear energy and the Biden Administration has identified carbon-free nuclear power as an essential part of achieving a net-zero CO_2 economy by 2050. Nuclear power, through the operating light water reactor fleet and the deployment of advanced reactors, is poised to be an increasing contributor to carbon free energy in the U.S. and internationally. The United States leads the world in technology innovation with more developers of advanced reactors than any other country.

Small modular reactors (SMRs) are advanced nuclear reactors that have a power capacity of up to 300 MW(e) per unit, which is about one-third of the generating capacity of traditional nuclear power reactors. SMRs, which can produce a large amount of low-carbon electricity, are:

- ***Small*** — physically a fraction of the size of a conventional nuclear power reactor.
- ***Modular*** — making it possible for systems and components to be factory-assembled and transported as a unit to a location for installation.
- ***Reactors*** — harnessing nuclear fission to generate heat to produce energy.

Many of the benefits of SMRs are inherently linked to the nature of their design — small and modular. Given their smaller footprint, SMRs can be sited on locations not suitable for larger nuclear power plants. Prefabricated units of SMRs can be manufactured and then shipped and installed on site, making them more affordable to build than large power reactors, which are often custom designed for a particular location, sometimes leading to construction delays. SMRs offer savings in cost and construction time, and they can be deployed incrementally to match increasing energy demand.

In comparison to existing reactors, proposed SMR designs are generally simpler, and the safety concept for SMRs often relies more on passive systems and inherent safety characteristics of the reactor, such as low power and operating pressure. This means that in such cases no human intervention or external power or force is required to shut down systems, because passive systems rely on physical phenomena, such as natural circulation, convection, gravity and self-pressurization. These increased safety margins, in some cases, eliminate or significantly lower the potential for unsafe releases of radioactivity to the environment and the public in case of an accident.

SMRs have reduced fuel requirements. Power plants based on SMRs may require less frequent refueling, every 3 to 7 years, in comparison to between 1 and 2 years for conventional plants. Some SMRs are designed to operate for up to 30 years without refueling. SMRs are under construction or in the licensing stage in Argentina, Canada, China, Russia, South Korea and the United States of America.

Within the last five years significant legislation supporting the development and deployment of advanced reactors has been enacted: the Nuclear Innovation and Modernization Act, the Nuclear Energy Innovation and Capabilities Act, the Energy Act of 2020 and the Infrastructure Investment and Jobs Act. In addition, Congress established and funded the Advanced Reactor Demonstration Program which now supports two advanced reactor demonstrations to be deployed within seven years and eight other advanced reactor projects.

SMRs will require a different grade of enriched Uranium

Many advanced reactors, including the majority of the Advanced Reactor Demonstration Program awardees, will require High Assay Low Enriched Uranium (HALEU), and fuel forms very different from those manufactured for the current Light Water Reactors (LWRs). For example, the current generation of LWRs uses fuel enriched to less than 5% uranium-235. In contrast, many advanced non-LWR designs require enrichments between 5% and 20% with most above 10%.

Currently it is not possible to purchase HALEU between 10% and 20% from a commercial enricher in the United States. In the U.S., the infrastructure for the front-end of the fuel cycle for the utilization of low enriched uranium up to 5% U-235 is well defined. The U.S. has mining, conversion, enrichment, fabrication, and transportation capability. However, the infrastructure for producing and utilizing HALEU, in particular enrichments above 10%, is not established in the U.S. The mining and conversion infrastructure are common to all enrichment levels.

In 2020, the Department of Energy (DOE) selected two companies for awards under the Advanced Reactor Demonstration Program (ARDP) Pathway 1: Advanced Reactor Demonstrations. Both reactor designs require HALEU and can be operational in about seven years. Today, it is estimated that the companies selected for the demonstration pathway will require HALEU for their reactors beginning in 2024 to support fuel fabrication ahead of reactor startup. In addition, one of the companies under Pathway 2: Risk Reduction for Future Demonstrations will require HALEU in the 2024-2025 timeframe and other companies in Pathway 2 and 3 of the ARDP will also require HALEU. Privately funded companies are also working to deploy HALEU fueled reactors by the mid-2020s.

The Nuclear Energy Institute (NEI) believes that it is virtually impossible for HALEU to be provided to these companies in the needed quantities and timeframes from DOE inventories or commercial enrichers located in the U.S or Western Europe. Therefore, acquiring HALEU from other international suppliers will be required in the near term to support the larger goal of deploying advanced reactors in the U.S. in a timely manner. Deploying these reactors before 2030 will support climate goals and position the U.S. to be a strong exporter of advanced reactor technology. Per the recent NEI white paper, a robust domestic HALEU infrastructure is necessary to support both the domestic deployment of advanced reactors and the export of U.S. advanced reactor technologies requiring HALEU.

In a letter to the DOE captioned "Updated Need for High-Assay Low Enriched Uranium" dated December 20, 2021, the NEI provided an estimate of what U.S. HALEU demand may be during the next 15 years:

Estimated Annual Requirements for High Assay Low Enriched Uranium to 2035 (MTU/yr)

Company	A	B	C	D	E	F	G	H	I	J	Total	Cumulative
Year												
2022	0.1	0.4					0.2		1.1	0.0	1.8	1.8
2023	0.1	3.1							4.4	0.1	7.7	9.5
2024	1.0	5.6	0.2	3.0			1.5		6.6	0.1	18.0	27.5
2025	1.0	3.8	0.4	3.0		5.0			11.0	1.6	25.8	53.3
2026	1.0	15.1		4.9		10.0	2.0	24.2	13.2	1.7	72.1	125.4
2027	1.0	26.5		7.9			4.0	24.2	13.2	1.9	78.7	204.1
2028	1.0	37.8		16.6		13.0	23.0	24.2	13.2	2.0	130.8	334.9
2029	1.0	26.3	1.8	30.5	17.0	18.0	14.0	24.2	16.5	2.4	151.7	486.6
2030	1.0	34.4	1.8	40.4	46.0	18.0	30.0	24.2	16.5	2.7	215.0	701.6
2031	23.0	42.5	6.2	53.0	29.0	22.0	33.0	24.2	16.5	2.9	252.3	954.0
2032	35.0	52.9	12.5	67.6	46.0	40.0	50.0	48.4	19.8	3.1	375.3	1329.2
2033	47.0	63.5	32.2	82.1	46.0	32.0	80.0	48.4	19.8	3.2	454.2	1783.4
2034	58.0	76.1	62.4	96.7	46.0	36.0	80.0	48.4	19.8	3.7	527.1	2310.5
2035	70.0	90.9	96.0	112.4	91.0	29.0	50.0	48.4	22.0	4.1	613.8	2924.3

Notes:

- The material needs listed above are in metric tons of uranium per year and are a small amount compared to the approximately 2000 MTU used annually by the existing fleet of reactors.
- The material needs listed above include enrichments between 10.9 and 19.75% U-235.
- The year the material is needed is for fuel fabrication. Insertion in the reactor and reactor operations will occur in a later year.
- The material needs that are less than 1 MTU/year are for irradiation samples, lead test rods and lead test fuel assemblies.
- The material needs represent a few scenarios
    - The deployment of an advanced fuel design for the existing fleet of light-water reactors.
    - The deployment of multiple reactors of the same design that will not require refueling for many years.
    - The deployment of reactors that have annual refueling requirements.
- These reactors include a range of sizes from a few Megawatt electric to 100s of Megawatt electric.
- The data above does not include utilities that are considering enrichment between 5% and 10%.

ASP Technology is ideally suited to the production of HALEU

We believe that we are in a very different position to many of the entrenched domestic and international enrichers. Our innovative isotope enrichment process has a number of advantages over traditional gas centrifuges and other novel approaches currently being explored by other companies: cheaper in Capex, faster in construction, more flexible in design and location.

We estimate that the capital cost of constructing an ASP plant for uranium enrichment is approximately 75% cheaper than that of a traditional gas centrifuge enrichment facility. Our manufacturing plants are modular, so our construction time is likely faster and more flexible than competing technologies. Our enrichment facilities are smaller than traditional gas centrifuges which means we can place them near fuel fabrication facilities for enhanced security of production and transportation. Our operating costs of enriching uranium to 15.5% - 19.75% U-235 should be comparable to or cheaper than costs for other methods of uranium enrichment.

The table below compares the ASP process with a traditional gas centrifuge when applied to a 20 mT plant.

	ASP Plant	**Gas Centrifuge**
Separation mechanism	Stationary Wall Centrifuge	Differential diffusion
Capital Cost per plant	<$150 million	>$800 million
Energy use (kWh) per SWU	<500	50-240
Construction time	2-3 years	2-3 years
Levelized cost per SWU*	$65	$140

* for enrichment from 0.71% U235 to 5% U235

We are currently conducting a feasibility study with respect to constructing an enrichment facility in either the United States or an international location. Construction of a new ASP enrichment facility in US would be done in three phases. The first phase would involve the construction and validation of an ASP test bench, the engineering design of the first segment and obtaining required permits and licenses from regulators. Excluding the licensing process, we expect this phase would take approximately 9-12 months.

The second phase would involve the construction of the first segment and control systems for the plant and the engineering design of the additional stages. We expect this stage would take approximately 9-12 months, resulting in the plant capable of operating in a close-loop setup which would demonstrate enrichment and start to produce small quantities of enriched Uranium.

The third phase would involve the construction of the remaining segments that will complete the plant and the commissioning phase. We expect this phase would take approximately 20-30 months and the production volume would gradually ramp up to the final capacity of 20 metric tons per year. Importantly, subject to licensure, we can produce commercial quantities of HALEU by 2026 that would satisfy the anticipated demand from all the advanced reactor currently in development. We can supply HALEU at a price lower than the HALEU currently imported from international enrichers and considerably lower than any potential domestic supply that may evolve.

Much of the control systems, compressors and hardware used in a uranium enrichment plant would be identical or similar to parts used to construct our Molybdenum plant in Pretoria. Our molybdenum plant uses molybdenum hexafluoride (MoF_6) and a Uranium pant would use uranium hexafluoride (UF_6).

Intellectual Property

Our business will depend on the proprietary ASP technology licensed by us from Klydon. To date, we and Klydon have relied exclusively on trade secrets and other intellectual property laws, non-disclosure agreements with our respective employees, consultants, vendors, potential customers and other relevant persons and other measures to protect our intellectual property, and intend to continue to rely on these and other means. As we intend to transition into the commercialization of Mo-100, we envision our intellectual property and its security becoming more vital to our future. Pursuing patent protection remains part of the intellectual property protection philosophy and strategy and the advisability of establishing provisional patent rights is continuously assessed on a case-by-case basis in respect of both conceptual aspects and the specific applications thereof. Such assessments are made in consultation with regulatory bodies and with due consideration to the prospects of successfully obtaining patent protection in light of any disclosure constraints that are imposed by such bodies.

Regulatory Environment

We are subject to a variety of laws and regulations, including but not limited to those of the United States and South Africa, that impose regulatory systems that govern many aspects of our operations, including our research and development activities involving the enrichment of isotopes in South Africa. In addition, these jurisdictions impose trade controls requirements that restrict trade to comply with applicable export controls and economic sanctions laws and requirements, and legal requirements that are intended to curtail bribery and corruption.

There are a number of regulators and treaties that govern and control our business and industry. The two principal ones that control and regulate the manufacturing of isotopes at our isotope enrichment facility in South Africa are the International Atomic Energy Agency (IAEA) and the Nuclear Non-Proliferation Treaty (NPT).

The IAEA is an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons. The IAEA was established as an autonomous organization on 29 July 1957. Though established independently of the United Nations through its own international treaty, the IAEA Statute, the IAEA reports to both the United Nations General Assembly and Security Council. The IAEA statute currently has 173 member states, including South Africa.

The IAEA is authorized to conclude agreements with member states, in terms of which agreements the agency would perform certain functions and the relevant member states would be placed under certain obligations. The IAEA has concluded an extensive suite of agreements with South Africa. These agreements can be viewed on the website of the IAEA (*https://www.iaea.org/resources/legal/country-factsheets*) and include agreements that govern the physical protection of nuclear material, the notification of nuclear accidents, assistance in the case of nuclear accidents, nuclear safety, civil liability, and technical cooperation.

The Treaty on the Non-Proliferation of Nuclear Weapons, commonly known as the Non-Proliferation Treaty or NPT, is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmament and general and complete disarmament. Our South African subsidiary is registered with the South African Council for the Non-Proliferation of Weapons of Mass Destruction in terms of the Non-Proliferation of Weapons of Mass Destruction Act, 1993. Our registration certificate is valid until September 3, 2023. Representatives from the South African Council for the Non-Proliferation of Weapons of Mass Destruction regularly inspect our facility and conduct tests to monitor the activities that are taking place at our facilities.

In South Africa, government Notice 493 relates to nuclear-related dual-use equipment, materials and software and related technologies which can be used in their entirety or in part for the separation of uranium isotopes. ASP is classified as a dual use technology under the protocols of the IAEA and, as such, is subject to the controls that are implemented under these protocols. These controls comprise requirements that include:

- membership of the IAEA and adherence to its protocols;
- membership of the Nuclear Suppliers Group (NSG) and adherence to its protocols;
- agreement to an “additional protocol” in light of uranium enrichment capabilities;
- local laws that requires permits for possession, operation and commercialization and regular reporting;
- ad hoc inspections by the IAEA on 24 hour and in some cases 2 hours pre-warning;
- requirement for proposed patent applications to be approved at ministerial level; and
- cross-border technology transfer to be handled by the respective governments and approved by IAEA.

These regulations place strict limitations on what we can and cannot do. Security measures at our production facility and our offices are stringent. Access to our manufacturing plant is highly controlled. All employees and all visitors to the manufacturing plant are prescreened by the South African Council for the Non-Proliferation of Weapons of Mass Destruction before being allowed employment or entry into the facility. Some of our suppliers also need to be registered with the South African Council for the Non-Proliferation of Weapons of Mass Destruction. Many of our computer systems are not connected to the external internet and confidential information is secured at a controlled location.

Currently, the production, distribution or sale of Mo-100 is not regulated by a healthcare regulator such as the Food and Drug Administration (FDA) in the USA, Health Canada in Canada, the European Medicines Agency in Europe and similar regulators in other countries. However, products that are produced from Mo-100 (such as Mo-99 and Tc-99m in a linear accelerator or cyclotron) are regulated by healthcare regulators and our customers are required to operate under the licensure of these healthcare regulators. Currently, the production and use of Tc-99m from Mo-100 in a cyclotron is only approved in one country (Canada).

Some of our future isotopes may also be regulated by healthcare regulators such as the Food and Drug Administration (FDA) in the USA, Health Canada in Canada, the European Medicines Agency in Europe and similar regulators in other countries.

U.S. laws restrict the ability of U.S. companies, U.S. citizens and U.S. permanent residents, or U.S. persons, from involvement in certain types of transactions with countries, businesses and individuals that have been targeted by U.S. economic sanctions. For example, U.S. persons are precluded from undertaking virtually any activity of any kind on the part of any U.S. person with regard to any potential or actual transactions involving Cuba, Iran and Sudan without the prior approval of the U.S. Department of Treasury's Office of Foreign Assets Control, or OFAC. OFAC also administers U.S. sanctions against a lengthy list of entities and individuals, wherever they may be located, that the United States considers to be closely associated with these sanctioned countries or that are considered terrorists or traffickers in either narcotics or weapons of mass destruction. Furthermore, U.S. economic sanctions forbid U.S. persons from circumventing direct U.S. restrictions or from facilitating transactions by non-U.S. persons if those activities are forbidden to U.S. persons. Penalties for violating provisions such as these can include significant civil and criminal fines, imprisonment and loss of tax credits or export privileges.

The Foreign Corrupt Practices Act of 1977, or the FCPA, as amended by the Omnibus Trade and Competitiveness Act of 1988 and the International Anti-Bribery and Fair Competition Act of 1998, makes it a criminal offense for a U.S. corporation or other U.S. domestic concern to make payments, gifts or give anything of value directly or indirectly to foreign officials for the purpose of obtaining or retaining business, or to obtain any other unfair or improper advantage. In addition, the FCPA imposes accounting standards and requirements on publicly traded U.S. corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments, and to prevent the establishment of "off books" slush funds from which such improper payments can be made. We are also subject to laws and regulations covering subject matter similar to that of the FCPA that have been enacted by countries outside of the United States. For example, the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions was signed by the members of the Organization for Economic Cooperation and Development and certain other countries in December 1997. The Convention requires each signatory to enact legislation that prohibits local persons and firms from making payments to foreign officials for the purpose of obtaining business or securing other unfair advantages from foreign governments. Failure to comply with these laws could subject us to, among other things, penalties and legal expenses, which could harm our reputation and have a material adverse effect on our business, financial condition and results of operations.

Compliance with the myriad of export control laws of the various jurisdictions in which we do business is a challenge for any company involved in export activities within the nuclear and defense end markets. We have compliance systems in our U.S. and non-U.S. subsidiaries to identify those products and technologies that are subject to export control regulatory restrictions and, where required, we obtain authorization from relevant regulatory authorities for sales to foreign buyers or for technology transfers to foreign consultants, companies, universities or foreign national employees. We also have a compliance system that is intended to proactively address potential compliance issues including those related to export control, trade sanctions and embargoes, as well as anti-bribery situations, and we are implementing this through such mechanisms as training, formalizing contracting processes, performing diligence on agents and continuing to improve our record-keeping and auditing practices with respect to third-party relationships and otherwise. Thus far, as part of our compliance system, for instance, we have developed a Code of Ethics and Conduct that informs all of our employees of their compliance obligations. Furthermore, we have developed an ethics and conduct training program that all of our employees are required to undertake, as well as other targeted compliance training relevant to their position, such as specific FCPA training for all of our worldwide

controllers. Violations of any of the various U.S. or non-U.S. export control laws can result in significant civil or criminal penalties, or even loss of export privileges, as mentioned above. We recognize that an effective compliance program can help protect the reputation and relationship of a regulated company with the regulatory agencies administering these laws and regulations. In the United States, each of the regulatory agencies administering these laws and regulations has a voluntary disclosure program that offers the possibility of significantly reduced penalties, if any are applicable, and we intend to use these programs as part of our overall compliance program, as necessary.

Employees

As of September 30, 2022, we employed four employees. None of our employees are represented by a labor union. We consider our relationship with our employees to be good.

Facilities

We lease our research and development facility in Pretoria, South Africa under a lease with a term expiring on December 31, 2030. We believe that our existing facilities are adequate to meet our current needs.

Legal Proceedings

We are currently not a party to any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

Set forth below is certain biographical and other information regarding our directors and our executive officers.

Name	Age	Position(s)
Executive Officers		
Paul E. Mann	46	Chairman and Chief Executive Officer
Hendrik Strydom, Ph.D.	62	Chief Technology Officer and Director
Robert Ainscow	46	Interim Chief Financial Officer
Non-Employee Directors		
Joshua Donfeld	46	Director
Duncan Moore, Ph.D.	63	Director
Sergey Vasnetsov	58	Director
Todd Wider, M.D.	57	Director

The following are brief biographies describing the backgrounds of our executive officers and directors.

Executive Officers

Paul E. Mann co-founded our company in September 2021 and has served as our Chairman and Chief Executive Officer and a member of our board of directors since incorporation. Paul also served as our Chief Financial Officer until September 2022. Prior to ASP Isotopes, Paul was Chief Financial Officer of PolarityTE, Inc. (Nasdaq: PTE), a biotechnology company, from June 2018 until April 2020. Prior to that, he responsible for Healthcare investments at DSAM Partners LLC, a global hedge fund. Earlier in his career, he was a portfolio manager at Highbridge Capital where he managed investments in healthcare and biotechnology. Prior to Highbridge Capital, from August 2013 to March 2016, he worked at Soros Fund Management where he was responsible for billions of dollars of investments in healthcare and chemicals companies. During his career as a healthcare and chemicals investor, Paul has helped create and fund numerous early stage and start-up companies. Prior to moving to the buy-side, Paul spent 11 years as a sell-side analyst at Morgan Stanley and Deutsche Bank. He co-managed the healthcare research team at Morgan Stanley, one of the top ranked teams in Institutional Investor, Greenwich and Reuters. He was also corporate broker to over half the UK Pharmaceutical Companies. Paul started his career as a research scientist at Procter and Gamble and he is named as the inventor of numerous skin creams in the Oil of Olay range of cosmetics. He is also a nonexecutive, independent director at Abeona Therapeutics (NASDAQ: ABEO), where he is the chair of the audit committee, and a director at Healthtech Solution Inc. (OTC: HLTT), where he is chairman of the board and serves on the audit committee. He is the co-founder and Chairman of Varian Biopharma, a private biotechnology company focused on precision oncology. Paul has an MA (Cantab) and an MEng from Cambridge University, UK where he studied Natural Sciences and Chemical Engineering and he is a CFA charter holder.

We believe Mr. Mann's detailed knowledge and unique perspective and insights as our founder and Chief Executive Officer, as well as his prior experience as Chief Financial Officer of another public company and extensive experience managing investments in healthcare, biotechnology and chemicals companies, qualify him to serve on our board of directors and position him well to serve as our Chairman.

Robert Ainscow co-founded our company in September 2021 and served as our VP and Head of Business Development until September 2022 when he was appointed Interim Chief Financial Officer. Prior to ASP Isotopes, Robert was head of capital markets at Zenzic Partners Limited from October 2017 to February 2021 and a founder of Bluezest Mortgages since November 2015. Robert has over 20 years' experience in financing operating companies and lending platforms through the provision of structured finance and securitisation structures in the debt capital markets. He has developed, executed and managed innovative structures to fund credit, renewable energy and transport and logistics assets encompassing all major financial jurisdictions, on and off-shore. Robert began his career at the first ever internet-bank, First-E; in the investment banking division, WIT-Soundview. Following the ".com" correction he entered mainstream investment banking at U.S. firms Morgan Stanley and Bear Stearns in London where he was an analyst in the Law Division with responsibility for capital markets oversight and a

Vice President in the Principal and Asset-Backed Finance Group with responsibility for securitisation respectively. He subsequently worked at Investec bank twice over the subsequent years as well as a variety of directorships, consultancies and investments in start-up and growth phase lending and securitisation platforms.

Hendrik Strydom, Ph.D. has served has served as our Chief Technology Officer since January 2022 and has served on our board of directors since January 2022. Dr. Strydom co-developed the isotope separation technology, known as “Aerodynamic Separation Process” (ASP). In 1993 Dr. Strydom co-founded SDI Ltd (now named Klydon), a research and development company which developed the ASP. Klydon, where Dr. Strydom currently serves as CEO, successfully exploited the ASP technology by separating Silicon (Si28), Carbon (C13 & C14), Oxygen (O-18) and Molybdenum (Mo-100). Since the commencement of commercial operation of the O-18 plant over 3 years ago, Klydon continues to sell O-18 into the South African radio pharmacy market. Dr. Strydom’s work on separation of isotopes started when he was employed as a scientist at the South African Atomic Energy Corporation (AEC), where he specialized in the laser separation of heavy isotopes. Dr. Strydom left AEC in 1993 to co-found Klydon. Dr. Strydom holds a BSc- Hons (Physics & Maths) (1983) — University of Pretoria, MSc (Physics) (1990) — University of Port Elizabeth, PhD (Physics) (2000) — University of Natal (Durban).

As the founder and CEO of Klydon, Dr. Strydom brings to the Board his detailed knowledge and unique perspective and insights regarding the strategic and operational opportunities and challenges, economic and industry trends, and competitive and financial positioning of our business.

Non-Employee Directors

Joshua Donfeld has served on our board of directors since October 2021. Joshua was most recently (May 2016-October 2020) a co-founding and co-managing partner of Castle Hook Partners, a New York-based investment management fund. At Castle Hook, among other responsibilities, he was responsible for overseeing the fund’s equity investments in sectors such as healthcare and natural resources. Prior to Castle Hook, Mr. Donfeld was a portfolio manager at Soros Fund Management from May 2012-April 2016. At Soros he was responsible for managing a portfolio of assets across public and private investments in industries spanning Energy, Utilities, Materials, Industrials, Healthcare, Consumer, Infrastructure and Technology. Prior to Soros Joshua was a Managing Director at Canyon Partners in Los Angeles where he was responsible for the firm’s Energy and Utilities investments in credit, distressed and equities. Mr. Donfeld has extensive experience in early-stage investing and he has extensive experience in capital markets, capital structuring, business planning, strategic planning, Wall Street management, corporate finance and accounting. Mr. Donfeld graduated Magna Cum Laude from Princeton University with a BA in Economics and a focus on Chinese language/East Asian Studies.

The Board believes that Mr. Donfeld’s significant financial expertise and experience contribute to the Board’s understanding and ability to analyze complex issues, particularly as the Company looks to grow its business, and qualify him to serve on our board of directors.

Duncan Moore, Ph.D. has served on our board of directors since October 2021. Duncan is a partner at East West Capital Partners since May 2008, which has a focus on making investments in the Healthcare Industry in Asia. Previously, from 1991 to 2008, Dr. Moore was a top-ranked pharmaceutical analyst at Morgan Stanley leading the firm’s global healthcare equity research team. Whilst at the University of Cambridge, he co-founded a medical diagnostics company called Ultra Clone with two colleagues which led to the beginnings of a 20-year career in healthcare capital markets analysis. In 1986, he was involved in setting up the BankInvest biotechnology funds and was on its scientific advisory board. Dr. Moore was educated in Edinburgh and went to the University of Leeds where he studied Biochemistry and Microbiology. He has a M.Phil. and Ph.D. from the University of Cambridge where he was also a post-doctoral research fellow. Currently, he is an active investor in biomedical companies as Chairman of Lamellar Biomedical and Allarity Therapeutics A/S (previously Oncology Venture A/S). In addition, he has a board position at Forward Pharma A/S, Cycle Pharma and GH Research. Duncan is the Chairman of the Scottish Life Sciences Association.

We believe that the experience, insights and knowledge Dr. Moore possesses from his leadership roles in business activities are important qualifications, skills and experience that provide valuable assistance to the Board and greatly contribute to the overall knowledge of the Board and its ability to address the issues we confront.

Sergey Vasnetsov has served on our board of directors since October 2021. Sergey has a long history in the chemicals industry as both a senior executive and as an investor. Since June 2016 he has been is the founder and managing partner of ChemBridges LLC, a strategy consulting firm for chemicals companies. From August 2010 to May 2016 Sergey was Senior Vice President Strategic Planning and Transactions and a member of the Executive Leadership Team for LyondellBasell (NYSE: LYB). His responsibilities included long-range financial and strategic planning, capital investments, external and internal benchmarking, cost reduction and profit enhancement programs. Prior to joining LyondellBasell, Sergey was Managing Director, Head of Global Chemicals Equity Research at Barclays Capital and Lehman Brothers. Sergey started his career as a Senior Research Chemist in Catalyst R&D at Union Carbide where he was the author of 8 US and World patents. Sergey has a Master of Science in Catalysis from the University of Novosibirsk, Russia. He was a George Soros Scholar at Oxford University (UK) and later earned an MBA in finance from Rutgers University.

We believe Mr. Vasnetsov's experience and knowledge in the chemicals industry, acquisitions and general business matters, and his demonstrated leadership roles in other business activities are important qualifications, skills and experience that benefits the Board.

Todd Wider, M.D. has served on our board of directors since October 2021. Dr. Wider is the Executive Chairman and Chief Medical Officer of Emendo Biotherapeutics, which focuses on highly specific and differentiated next generation gene editing. Dr. Wider served on the board of directors of ARYA Sciences Acquisition Corp I, which had a successful business combination with Immatics N.V. (IMTX) in 2020. He served on the board of ARYA Sciences Acquisition Corp II, which had a successful business combination with Nautilus Biotechnology (NAUT) in 2021. He also served on the board of ARYA III, which had a successful business combination with Cerevel Therapeutics (CERE) in 2021. He is also on the boards of ARYA Sciences Acquisition Corp IV and V (ARYD and ARYE), Abeona Therapeutics Inc. (Nasdaq: ABEO), Varian Biopharma, Xanadu Bio, and Lyfebulb. Dr. Wider previously consulted with a number of entities in the biotechnology space. Dr. Wider is an active, honorary member of the medical staff of Mount Sinai Hospital in New York, where he worked for over 20 years, focused on reconstructive surgery. Dr. Wider received an MD from Columbia College of Physicians and Surgeons, where he was Rudin Fellow, and an AB, with high honors and Phi Beta Kappa, from Princeton University. He did his residency in general surgery and plastic and reconstructive surgery at Columbia Presbyterian Medical Center, and postdoctoral fellowships in complex reconstructive surgery at Memorial Sloan Kettering Cancer Center, where he was Chief Microsurgery Fellow, and in craniofacial surgery at the University of Miami. Dr. Wider is also a principal in Wider Film Projects, a documentary film company focused on producing films with sociopolitical resonance that have won Academy, Emmy and Peabody Awards.

We believe Dr. Wider, as a result of his vast public and private company board experience at a variety of companies, possesses knowledge and experience in various areas, including business leadership, finance and technology, which strengthens the Board's overall knowledge, capabilities and experience.

Board Composition

Our bylaws provide that our board of directors shall initially consist of six members, and thereafter shall be fixed from time to time by resolution of our board of directors. Currently our board of directors consists of six members: Paul Mann, Joshua Donfeld, Duncan Moore, Hendrik Strydom, Sergey Vasnetsov and Todd Wider.

In accordance with our Certificate of Incorporation, our board of directors will be divided into three classes with staggered three year terms. At each annual meeting of stockholders after the initial classification, the successors to the directors whose terms will then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election. Our directors will be divided among the three classes as follows:

- the Class I directors will be Paul Mann and Joshua Donfeld, and their terms will expire at the annual meeting of stockholders to be held in 2023;
- the Class II directors will be Sergey Vasnetsov and Duncan Moore, and their terms will expire at the annual meeting of stockholders to be held in 2024; and
- the Class III directors will be Hendrik Strydom and Todd Wider, and their terms will expire at the annual meeting of stockholders to be held in 2025.

Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our board of directors may have the effect of delaying or preventing changes in control of our company.

Our board of directors has determined that upon completion of this offering, Messrs. Donfeld, Vasnetsov, Moore and Wider will be independent directors. In making this determination, our board of directors applied the standards set forth in the rules of Nasdaq and in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our board of directors considered all relevant facts and circumstances known to it in evaluating the independence of these directors, including their current and historical employment, any compensation we have given to them, any transactions we have with them, their beneficial ownership of our capital stock, their ability to exert control over us, all other material relationships they have had with us and the same facts with respect to their immediate family.

Although there is no specific policy regarding diversity in identifying director nominees, both the Nominating and Corporate Governance Committee and the board of directors seek the talents and backgrounds that would be most helpful to us in selecting director nominees. In particular, the Nominating and Corporate Governance Committee, when recommending director candidates to the full board of directors nomination, may consider whether a director candidate, if elected, assists in achieving a mix of board of directors members that represents a diversity of background and experience.

Board Leadership Structure

Our board of directors recognizes that one of its key responsibilities is to evaluate and determine its optimal leadership structure so as to provide effective oversight of management. Our bylaws and corporate governance guidelines, will provide our board of directors with flexibility to combine or separate the positions of Chairman of the Board and Chief Executive Officer. Our board of directors currently believes that our existing leadership structure, under which Paul E. Mann serves as our chief executive officer, is effective, provides the appropriate balance of authority between independent and non-independent directors, and achieves the optimal governance model for us and for our stockholders.

Board Oversight of Risk

Although management is responsible for the day to day management of the risks our company faces, our board of directors and its committees take an active role in overseeing management of our risks and have the ultimate responsibility for the oversight of risk management. The board of directors regularly reviews information regarding our operational, financial, legal and strategic risks. Specifically, senior management attends quarterly meetings of the board of directors, provides presentations on operations including significant risks, and is available to address any questions or concerns raised by our board of directors.

In addition, we expect that our three committees will assist the board of directors in fulfilling its oversight responsibilities regarding risk. The Audit Committee will coordinate the Board of Director's oversight of our internal control over financial reporting, disclosure controls and procedures, related party transactions and code of conduct and management will regularly report to the Audit Committee on these areas. The Compensation Committee will assist the board of directors in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs. The Nominating and Corporate Governance Committee will assist the board of directors in fulfilling its oversight responsibilities with respect to the management of risks associated with board organization, membership and structure, succession planning for our management and directors and corporate governance. When any of the committees receives a report related to material risk oversight, the chairman of the relevant committee will report on the discussion to the full board of directors.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct, that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Upon the closing of this offering, a current copy of the code will be posted on the Investor Relations section of our website at *www.aspisotopes.com*. The information contained on our website is not part of this prospectus. If we make any substantive amendments to, or grant any waivers

from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K within four business days of such amendment or waiver.

Board Committees

Our board of directors has established an audit committee, or the Audit Committee, a compensation committee, or the Compensation Committee, and a nominating and corporate governance committee, or the Nominating and Corporate Governance Committee, each of which will operate pursuant to a charter to be adopted by our board of directors and will be effective upon the closing of this offering. Our board of directors may also establish other committees from time to time to assist the board of directors. Effective upon the closing of this offering, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act and Nasdaq and SEC rules and regulations. Upon our listing on the Nasdaq, each committee's charter will be available on our website at *www.aspisotopes.com*.

Audit Committee

The members of our Audit Committee are Todd Wider, Joshua Donfeld and Duncan Moore, with Mr. Wider serving as chair. Our board of directors has determined that each member of the Audit Committee is "independent" as that term is defined in the SEC and Nasdaq rules, meets the heightened independence requirements for audit committees required under Section 10A of the Exchange Act and related SEC and Nasdaq rules, and has sufficient knowledge in financial and auditing matters to serve on the Audit Committee. Our board of directors has designated Mr. Donfeld as an "audit committee financial expert," as defined under the applicable rules of the SEC. The audit committee's responsibilities include:

- appointing, approving the compensation of and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending based upon the audit committee's review and discussions with management and our independent registered public accounting firm whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

Compensation Committee

The members of our Compensation Committee are Duncan Moore and Todd Wider with Mr.Moore serving as chair. Our board of directors has determined that each member of the Compensation Committee is "independent" as that term is defined in SEC and Nasdaq rules, meets the heightened independence requirements for compensation committee purposes under Section 10C of the Exchange Act and related SEC and Nasdaq rules, and is a "non-employee director" under Rule 16b-3 under the Exchange Act. The compensation committee's responsibilities include:

- reviewing and approving our philosophy, policies and plans with respect to the compensation of our chief executive officer;
- making recommendations to our board of directors with respect to the compensation of our chief executive officer and our other executive officers;
- reviewing and assessing the independence of compensation advisors;
- overseeing and administering our equity incentive plans;
- reviewing and making recommendations to our board of directors with respect to director compensation; and
- preparing the Compensation Committee reports on executive compensation, including a "Compensation Discussion and Analysis" disclosure, for inclusion in the company's proxy statement for the annual meeting of shareholders, if and when applicable in accordance with rules and regulations of the SEC.

Nominating and Corporate Governance Committee

Effective upon the closing of this offering Joshua Donfeld and Sergey Vasnetsov will serve on the Nominating and Corporate Governance Committee, which will be chaired by Mr. Donfeld. Our board of directors has determined that each member of the Nominating and Corporate Governance Committee is "independent" as defined in Nasdaq rules. The Nominating and Corporate Governance Committee's responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- reviewing the composition of the board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying and screening individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board of directors a code of business conduct and ethics; and
- overseeing the evaluation of our board of directors and management.

Compensation Committee Interlocks and Insider Participation

None of the members of our Compensation Committee has during the prior fiscal year been one of our officers or employees or had a relationship requiring disclosure under "Certain Relationships and Related Party Transactions." None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

EXECUTIVE COMPENSATION

This section discusses the material components of the executive compensation program for Paul Mann, our Co-Founder and Chairman and Chief Executive Officer (and former Chief Financial Officer), who we refer to as our "named executive officer." We only have one named executive officer for fiscal year 2021 because our company has a small number of executive officers and no other executive officer of our company received compensation in excess of $100,000 for fiscal year 2021.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the closing of this offering may differ materially from the currently planned programs summarized in this discussion.

Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officer for the fiscal year ended December 31, 2021.

Name and Principal Position	Salary ($)	Bonus ($)	Stock Awards ($)[2]	Option Awards ($)[2]	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Paul Mann	$ 60,000	$ —	$ 375,000	$ —	$ —	$ —	$ 435,000
Chairman and Chief Executive Officer[1]							

(1) Mr. Mann served as our Chairman, Chief Executive Officer since September 2021. He also served as our Chief Financial Officer from September 2021 until September 2022.

(2) In accordance with SEC rules, these columns reflect the aggregate grant date fair value of the restricted stock awards granted during 2021. This amount has been computed in accordance with Financial Accounting Standards Board (FASB), Accounting Standards Codification (ASC) Topic 718. Assumptions used in the calculation of this amount are described in Note 2 to our audited consolidated financial statements included elsewhere in this prospectus. This amount does not reflect the actual economic value that will be realized by Mr. Mann upon the vesting of the stock awards or the sale of the common stock underlying such awards.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding option awards held by our named executive officer as of December 31, 2021.

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares of Stock that Have Not Vested	Market Value of Shares that Have Not Vested
Paul Mann	—	—	—	—	1,500,000[1]	$ 3,000,000[2]

(1) The amounts reported in this column represent 1,500,000 shares of performance-based restricted common stock granted by us to Mr. Mann in October 2021. The shares vest upon achieving certain performance conditions and market conditions upon the third anniversary of the date of grant.

(2) This amount reflects the fair market value of our common stock of $2.00 per share as of December 31, 2021 (the determination of the fair market value by our board of directors as of the most proximate date) multiplied by the amount shown in the column for the number of shares that have not vested.

Employment Agreements

Below is a description of our employment agreements with, Paul Mann, our named executive officer for fiscal year 2021, including a discussion of the severance pay and other benefits to be provided in connection with a termination of employment and/or a change in control under the arrangements with our named executive officer. Additionally, below is a description of our employment agreement with Robert Ainscow, our current Interim Chief Financial Officer.

Paul Mann.

We entered into an executive employment agreement with Mr. Mann in October 2021, which governs the current terms of his employment with us as Chief Executive Officer. Pursuant to the agreement, Mr. Mann is entitled to an annual base salary of $240,000 per annum for the first six months and $480,000 per annum for the remainder of the employment period, a target annual discretionary bonus equal to 100% of his annual base salary, and milestone-based bonuses paid in shares of our common stock based on the achievement of revenue milestones. Annual bonuses will be paid in a mixture of cash and common stock, as determined by the compensation committee.

Subject to our achievement of $4.167 million in average monthly revenues for a trailing three- month period Mr. Mann will be paid a $1,000,000 bonus. Subject to our achievement of $8.33million in average monthly revenues for a trailing three-month period Mr. Mann will be paid an additional $1,000,000 bonus. Subject to our achievement of $12.5 million in average monthly revenues for a trailing three-month period Mr. Mann will be paid an additional $1,000,000 bonus. Subject to our achievement of $16.67million in average monthly revenues for a trailing three-month period Mr. Mann will be paid an additional $1,000,000 bonus. Any earned milestone-based bonuses will be paid within 30 days of the achievement of the applicable revenue goal and the number of vested shares issued to Mr. Mann shall be determined by dividing the $1,000,000 bonus amount by either the then fair market value per share of common stock, as determined in good faith by our board of directors, or the closing sale price of our common stock on the trading day immediately preceding the applicable payment date, as reported by the principal trading market for our common stock.

Mr. Mann's employment agreement has an initial term of three years and will automatically renew for successive one year periods unless either party provides notice of termination. Mr. Mann is also entitled to certain severance benefits under the terms of his employment agreement.

Upon a termination of Mr. Mann's employment for any reason, Mr. Mann is entitled to receive a pro-rata annual bonus for the year of termination.

Upon a termination of Mr. Mann's employment for any reason other than due to his voluntary resignation without good reason and which does not occur in connection with a change in control, Mr. Mann will receive continued payment of Mr. Mann's base salary until the end of the then-applicable remaining employment period term and reimbursement of COBRA premiums for up to an 18-month period.

Upon a termination of Mr. Mann's employment due to his death, disability, termination without cause, resignation for good reason, or resignation in connection with a change of control, the vesting and exercisability of all equity awards held by Mr. Mann shall immediately accelerate, so that all such equity awards shall be fully vested and exercisable as of the date of his termination. Additionally, upon such termination Mr. Mann's stock options (as well as any other exercisable equity awards) will remain exercisable until the earlier one year after Mr. Mann' s termination or the original maximum permitted term of the equity award.

Robert Ainscow.

We also entered into an executive employment agreement with Robert Ainscow in October 2021 pursuant to which he was appointed as Vice President and Head of Business Development. We entered into an amendment to Mr. Ainscow's employment agreement in September 2022 in connection with his appointment as Interim Chief Financial Officer. Pursuant to the agreement (as amended), Mr. Ainscow is entitled to an initial base salary of $160,000 per annum (which will increase to $300,000 per annum when the company has produced 250 grams of commercial product), a target annual discretionary bonus equal to 40% of his annual base salary, and milestone-based bonuses paid in shares of our common stock based on the achievement of revenue milestones. Annual bonuses will be paid in a mixture of cash and common stock, as determined by the compensation committee.

Mr. Ainscow's employment agreement has an initial term of one year and will automatically renewed for successive one year periods unless either party provides notice of termination. Mr. Ainscow is also entitled to certain severance benefits under his employment agreement.

Upon a termination of Mr. Ainscow's employment for any reason other than due to his voluntary resignation without good reason and which does not occur in connection with a change in control, Mr. Ainscow will receive reimbursement of COBRA premiums for up to an 18-month period.

Upon a termination of Mr. Ainscow's employment due to his death, disability, or termination without cause, resignation for good reason, or resignation in connection with a change in control the vesting and exercisability of all equity awards held by Mr. Ainscow shall immediately accelerate, so that all such equity awards shall be fully vested and exercisable as of the date of his termination. Additionally, upon such termination Mr. Ainscow's stock options (as well as any other exercisable equity awards) will remain exercisable until the earlier of one year after Mr. Ainscow' s termination or the original maximum permitted term of the equity award.

Performance Share Award.

On October 4, 2021 Mr. Mann was awarded 1,500,000 shares of performance-based restricted common stock. The number of shares that may become vested and nonforfeitable will range for zero to 1,500,000 and be determined on the third anniversary of the grant (or, if earlier, the date on which a change in control transaction occurs), which is the "measurement date," based on the "adjusted share price" on the measurement date, which will be calculated based on the average of the adjusted closing prices of our common stock during the 90 consecutive trading days ending on the specified measurement date, divided by the total number of shares common stock outstanding and underlying any convertible preferred stock outstanding as of the measurement date. If, on the measurement date, the "adjusted share price" (a) is less than $0.25, then all shares subject to the award will be immediately forfeited for no consideration; (b) equals or exceeds $0.50, then 20% of the shares subject to the award will vest on the measurement date; (c) equals or exceeds $0.75, then 40% of the shares subject to the award will vest on the measurement date, (d) equals or exceeds $1.00, then 60% of the shares subject to the award will vest on the measurement date, (e) equals or exceeds $1.25, then 80% of the shares subject to the award will vest on the measurement date; and (f) equals or exceeds $1.50, then 100% of the shares subject to the award will vest on the measurement date. The shares subject to the award may also become vested and nonforfeitable before the measurement date; if the adjusted share price exceeds any of the prices described in foregoing clauses (a)-(f) for 90 consecutive trading days before the measurement date, then the corresponding number of shares subject to the award will immediately vest.

2022 Plan Awards at IPO.

We intend to make special one-time awards of restricted stock upon completion of this offering to our officers, directors and consultants in recognition of their contributions to our initial public offering process and their ongoing service to us as a public company. All of these awards are contingent upon completion of this offering. The shares of restricted stock are subject to time-based vesting and are not subject to further performance-based criteria. Our named executive officer, Mr. Mann, will receive 1,000,000 shares of restricted stock and Mr. Vasnetsov and Mr. Ainscow will each receive 600,000 shares of restricted stock. Each of our directors (excluding Messrs. Mann and Vasnetsov) will receive 200,000 shares of restricted stock. The restricted stock awards to our executives and consultants will become 25% vested on each anniversary of this offering and the restricted stock awards to our directors (other than Messrs. Mann and Vasnetsov) will become 100% vested on the anniversary of this offering, subject to continuous service of the participant with us through each such date.

Employee Benefit and Equity Incentive Plans

2022 Equity Incentive Plan

In October 2022 our board of directors adopted, and our stockholders approved, the 2022 Plan, which will become effective immediately prior to the closing of this offering. We intend to use the 2022 Plan following the closing of this offering to provide incentives that will assist us to attract, retain, and motivate employees, including officers, consultants, and directors.

We may provide these incentives through the grant of stock options, stock appreciation rights, restricted stock, RSUs, performance shares, and units and other cash-based or share-based awards. In addition, the 2022 Plan contains a mechanism through which we may adopt a deferred compensation arrangement in the future.

A total of 5,000,000 shares of our common stock are initially authorized and reserved for future issuance under the 2022 Plan. This reserve will automatically increase on January 1, 2023 and each subsequent anniversary through 2032, by an amount equal to the smaller of:

- 5.0% of the number of shares of common stock issued and outstanding on the immediately preceding December 31; and
- an amount determined by our board of directors.

Appropriate adjustments will be made in the number of authorized shares and other numerical limits in the 2022 Plan and in outstanding awards to prevent dilution or enlargement of participants' rights in the event of a stock split or other change in our capital structure. Shares subject to awards which expire or are cancelled or forfeited will again become available for issuance under the 2022 Plan.

The shares available under the 2022 Plan will not be reduced by awards settled in cash. Shares withheld or reacquired by us in satisfaction of our tax withholding obligations pursuant to the exercise or settlement of options or SARs or the vesting or settlement of full value equity awards shall again become available for issuance under the 2022 Plan. The gross number of shares issued upon the exercise of stock appreciation rights or options exercised by means of a net exercise or by tender of previously owned shares will be deducted from the shares available under the 2022 Plan.

The 2022 Plan generally will be administered by the compensation committee of our board of directors, which we refer to as the administrator. Subject to the provisions of the 2022 Plan, the compensation committee will determine in its discretion the persons to whom and the times at which awards are granted, the sizes of such awards and all of their terms and conditions. The compensation committee will have the authority to construe and interpret the terms of the 2022 Plan and awards granted under it. The 2022 Plan provides, subject to certain limitations, for indemnification by us of any director, officer, or employee against all reasonable expenses, including attorneys' fees, incurred in connection with any legal action arising from such person's action or failure to act in administering the 2022 Plan.

In any one year period measured commencing on the date of our annual meeting of stockholders for a particular year that is held following the closing of our initial public offering and ending on the day immediately prior to the date of our annual meeting of stockholders for the next subsequent year, the maximum number of shares of common stock subject to stock awards granted under the 2022 Plan or otherwise during any period to any non-employee director, taken together with any cash fees paid by us to such non-employee director during such period for service on the board of directors, will not exceed $600,000 in total value (calculating the value of any such stock awards based on the grant date fair value of such stock awards for financial reporting purposes), or, with respect to the period in which a non-employee director is first appointed or elected to our board of directors, $1,000,000.

The 2022 Plan will authorize the compensation committee, without further stockholder approval, to provide for the cancellation of stock options or stock appreciation rights with exercise prices in excess of the fair market value of the underlying shares of common stock on the date of grant in exchange for new options or other equity awards with exercise prices equal to the fair market value of the underlying common stock on the date of grant or a cash payment or other full value equity awards.

Awards may be granted under the 2022 Plan to our employees, including officers, directors, or consultants or those of any present or future parent or subsidiary corporation or other affiliated entity. All awards will be evidenced by a written agreement between us and the holder of the award and may include any of the following:

- *Stock options.* We may grant non-statutory stock options or incentive stock options (as described in Section 422 of the Code), each of which gives its holder the right, during a specified term (not exceeding ten years) and subject to any specified vesting or other conditions, to purchase a number of shares of our common stock at an exercise price per share determined by the administrator, which may not be less than the fair market value of a share of our common stock on the date of grant.

- *Stock appreciation rights.* A stock appreciation right, or SAR, gives its holder the right, during a specified term (not exceeding ten years) and subject to any specified vesting or other conditions, to receive the appreciation in the fair market value of our common stock between the date of grant of the award and the date of its exercise. We may pay the appreciation in shares of our common stock or in cash.

- *Restricted stock.* The administrator may grant restricted stock awards either as a bonus or as a purchase right at a price determined by the administrator. Shares of restricted stock remain subject to forfeiture until vested, based on such terms and conditions as the administrator specifies. Holders of restricted stock will have the right to vote the shares and to receive any dividends paid, except that the dividends may be subject to the same vesting conditions as the related shares.

- *Restricted stock units.* Restricted stock units, or RSUs, represent rights to receive shares of our common stock (or their value in cash) at a future date without payment of a purchase price, subject to vesting or other conditions specified by the administrator. Holders of RSUs have no voting rights or rights to receive cash dividends unless and until shares of common stock are issued in settlement of such awards. However, the administrator may grant RSUs that entitle their holders to dividend equivalent rights.

- *Performance awards.* Performance awards, consisting of either performance shares or performance units, are awards that will result in a payment to their holder only if specified performance goals are achieved during a specified performance period. The administrator establishes the applicable performance goals based on one or more measures of business performance, such as revenue, gross margin, net income or total stockholder return. To the extent earned, performance awards may be settled in cash, in shares of our common stock or a combination of both in the discretion of the administrator. Holders of performance shares or performance units have no voting rights or rights to receive cash dividends unless and until shares of common stock are issued in settlement of such awards. However, the administrator may grant performance shares that entitle their holders to dividend equivalent rights.

- *Cash-based awards and other share-based awards.* The administrator may grant cash-based awards that specify a monetary payment or range of payments or other share-based awards that specify a number or range of shares or units that, in either case, are subject to vesting or other conditions specified by the administrator. Settlement of these awards may be in cash or shares of our common stock, as determined by the administrator. Their holders will have no voting rights or right to receive cash dividends unless and until shares of our common stock are issued pursuant to the awards. The administrator may grant dividend equivalent rights with respect to other share-based awards.

In the event of a change in control as described in the 2022 Plan, the acquiring or successor entity may assume or continue all or any awards outstanding under the 2022 Plan or substitute substantially equivalent awards. The compensation committee may provide for the acceleration of vesting of any or all outstanding awards upon such terms and to such extent as it determines, except that the vesting of all awards held by members of the board of directors who are not employees will automatically be accelerated in full. Any awards that are not assumed, continued, or substituted for in connection with a change in control or are not exercised or settled prior to the change in control will terminate effective as of the time of the change in control. The 2022 Plan will also authorize the compensation committee, in its discretion and without the consent of any participant, to cancel each or any outstanding award denominated in shares upon a change in control in exchange for a payment to the participant with respect to each share subject to the cancelled award of an amount equal to the excess of the consideration to be paid per share of common stock in the change in control transaction over the exercise price per share, if any, under the award.

The 2022 Plan will continue in effect until it is terminated by the compensation committee, provided, however, that all awards will be granted, if at all, within ten years of its effective date. The compensation committee may amend, suspend or terminate the 2022 Plan at any time, provided that without stockholder approval, the plan cannot be amended to increase the number of shares authorized, change the class of persons eligible to receive incentive stock options, or effect any other change that would require stockholder approval under any applicable law or listing rule.

2021 Stock Incentive Plan

The 2021 Plan was originally adopted by our board of directors and approved by our stockholders in October 2021. The maximum aggregate number of shares of common stock that may be issued under the 2021 Plan is 6,000,000. Upon the closing of this offering, our board of directors will terminate the 2021 Plan and we will not grant any further awards under such plan, but the 2021 Plan will continue to govern outstanding awards granted thereunder. Our compensation committee administers the 2021 Plan and has the authority, among other things, to construe and interpret the terms of the 2021 Plan and awards granted thereunder, and is referred to as the administrator of the 2021 Plan in this summary.

The 2021 Plan permits the grant of options. As of June 30, 2022, we had options to purchase 2,266,000 shares of common stock outstanding under the 2021 Plan. Appropriate and proportionate adjustments will be made to the number of shares subject to outstanding awards to prevent dilution or enlargement of participants' rights in the event of a recapitalization, reclassification, stock dividend, stock split, reverse stock split, split-up, split-off, spin-off, combination of shares, exchange of shares or similar change in our capital structure, or in the event of payment of a dividend or distribution to our stockholders in a form other than shares (excepting normal cash dividends). All awards will be evidenced by a written agreement between us and the holder of the award and may include any of the following:

- *Stock options.* We may grant non-statutory stock options or incentive stock options (as described in Section 422 of the Code), each of which gives its holder the right, during a specified term (not exceeding ten years) and subject to any specified vesting or other conditions, to purchase a number of shares of our common stock at an exercise price per share determined by the administrator, which may not be less than the fair market value of a share of our common stock on the date of grant.

- *Restricted stock awards.* We may grant restricted stock awards either as a bonus or as a purchase right at such price as the administrator determines. Shares of restricted stock remain subject to forfeiture until vested, based on such terms and conditions as the administrator specifies. Holders of restricted stock will have the right to vote the shares and to receive any dividends paid, except that the dividends will be subject to the same vesting conditions as the related shares.

- *Restricted stock units.* RSUs represent rights to receive shares of our common stock (or their value in cash) at a future date without payment of a purchase price, subject to vesting or other conditions specified by the administrator. Holders of RSUs have no voting rights or rights to receive cash dividends unless and until shares of common stock are issued in settlement of such awards. However, the administrator may grant RSUs that entitle their holders to dividend equivalent rights.

In its discretion, our compensation committee may provide for acceleration of the exercisability, vesting or settlement of awards in connection with a "change in control," as defined under the 2021 Plan, of each or any outstanding award or portion thereof and common stock acquired pursuant thereto upon such conditions, including termination of the plan participant's service prior to, upon or following such change in control, and to such extent as our compensation committee determines. In the event of a change in control, the surviving, continuing, successor or purchasing corporation or other business entity or parent thereof, as the case may be, may, without the consent of any plan participant, either assume or continue the rights and obligations under each or any award or portion thereof outstanding immediately prior to the change in control or substitute for each or any such outstanding award or portion thereof a substantially equivalent award with respect to the stock of the surviving, continuing, successor or purchasing corporation or other business entity or parent thereof, as applicable. Any award or portion thereof which is neither assumed nor continued by the surviving, continuing, successor or purchasing corporation or other business entity or parent thereof in connection with the change in control nor exercised or settled as of the time of consummation of the change in control shall terminate and cease to be outstanding effective as of the time of consummation of the change in control.

Limitation of Liability and Indemnification

Our Certificate of Incorporation will contain provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director’s duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law, or the DGCL; or
- any transaction from which the director derived an improper personal benefit.

Our Certificate of Incorporation and our Bylaws will provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our Certificate of Incorporation and our Bylaws will also provide that we may indemnify a director, officer, employee or agent (including the advancement of the final disposition of any action or proceeding), and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify and advance expenses to our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys’ fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these Bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors’ and officers’ liability insurance.

The limitation of liability and indemnification provisions in our Certificate of Incorporation and our Bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder’s investment may be adversely affected to the extent that we pay the costs of settlement and damage.

Director Compensation

The following table sets forth information regarding compensation earned by our non-employee-directors for service on our board of directors during the year ended December 31, 2021. Hendrik Strydom, Ph.D. joined our board of directors in January 2022.

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)	All Other Compensation ($)	Total ($)
Josh Donfeld	—	—	—	—
Duncan Moore, Ph.D.	—	—	—	—
Sergey Vasnetsov	—	—	—	—
Todd Wider, M.D.	—	—	—	—

We have entered into director agreements with Messrs. Donfeld, Moore and Wider, pursuant to which we agreed to pay to each such director a fee for his service of $60,000 per year, payable at the director’s discretion in cash or common stock at market value. The initial payment will be made on October 13, 2022 provided that the director continues to serve through such date. Following the initial payment, the fee will be paid quarterly in arrears ($15,000 quarterly instalments) on the last business day of each December, March, June and September during the director’s term. In addition, we agreed to award a common stock award with a market value of $100,000 on October 13, 2022 and annually each year thereafter during the director’s term. Directors who are also our employees will not receive fees for service on our board of directors.

2022 Plan Awards at IPO. We intend to make special one-time awards of restricted stock upon completion of this offering to our officers, directors and consultants in recognition of their contributions to our initial public offering process and their ongoing service to us as a public company. All of these awards are contingent upon completion of this offering. The shares of restricted stock are subject to time-based vesting and are not subject to further performance-based criteria. Each of our directors (excluding Messrs. Mann and Vasnetsov) will receive 200,000 shares of restricted stock. The restricted stock awards to our directors (other than Messrs. Mann and Vasnetsov) will become 100% vested on the first anniversary of this offering, subject to continuous service of the participant with us through such date. Mr. Vasnetsov will receive 600,000 shares of restricted stock which will become 25% vested on each anniversary of this offering, subject to continuous service of the participant with us through each such date.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than the compensation agreements and other arrangements described in the "Executive Compensation" section of this prospectus and the transactions described below, since September 13, 2021, the date of our incorporation, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, $120,000 and in which any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

Our Relationship with Klydon Proprietary Limited ("Klydon")

Dr Einar Ronander, who serves as Chief Scientific Adviser to our board of directors, and Dr Hendrik Strydom, one of our directors, previously co-founded and currently serve as Executive Chairperson and Chief Executive Officer, of Klydon. Dr Ronander and Dr Strydom are the controlling shareholders of Klydon through Isotope Separation Technology (Pty) Ltd, a company jointly owned by Dr Ronander and Dr Strydom and the largest shareholder of Klydon. Dr Ronander and Dr Strydom each own approximately 11.9% of our outstanding shares of common stock. Immediately following the closing of this offering, Dr Ronander and Dr Strydom will each own 11.2% of our outstanding shares of common stock (or approximately 11.1% of our common stock, if the underwriters exercise in full their option to purchase additional shares of our common stock in this offering). As a result, Dr Ronander and Dr Strydom will continue to have significant influence over our business, including pursuant to the agreements described below. The agreements summarized below are filed as exhibits to the registration statement of which this prospectus is a part, and the summaries of these agreements set forth the terms of the agreements that we believe are material. These summaries are qualified in their entirety by reference to the full text of such agreements.

Exclusive Mo-100 License *(superseded and replaced by new license (see "Omnibus Klydon License" below))*. On September 30, 2021, our subsidiary, ASP Isotopes South Africa (Proprietary) Limited ("ASP South Africa"), as licensee, entered into a license with Klydon, as licensor, pursuant to which ASP South Africa acquired from Klydon an exclusive license to use, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the development and/or otherwise disposing of the ASP technology and production, distribution, marketing and or sale of Mo-100 isotope produced using the ASP technology (as amended on June 8, 2022, the "Mo-100 license"). The intellectual property rights granted to us through the Mo-100 license included all existing and/or future proprietary rights of Klydon relating to the ASP technology, whether or not such rights have been registered including the copyright, designs, know-how, patents and trademarks (although Klydon currently has no such patents, patent applications or copyrights). The exclusive Mo-100 license was royalty-free, had a term of 999 years and was for the global development of the ASP Technology and production of the Mo-100 Isotope and global for the distribution, marketing and sale of the Mo-100 Isotope. No upfront or other payment was made or is owed in connection with the Mo-100 license. Klydon had the right to terminate the exclusivity of the Mo-100 license in the event that the licensee ceased carrying on activities of Mo-100 enrichment for a period of greater than 24 consecutive months. Klydon had no other rights to terminate the Mo-100 license. Effective July 26, 2022, the parties agreed to terminate the Mo-100 license, which was superseded and replaced by a new license agreement (described under the heading "Omnibus Klydon License" below).

Exclusive U-235 License *(superseded and replaced by new license (see "Omnibus Klydon License" below))*. On January 25, 2022, ASP South Africa, as licensee, entered into a license with Klydon, as licensor, pursuant to which ASP South Africa acquired from Klydon an exclusive license to use, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the development and/or otherwise disposing of the ASP technology and production, distribution, marketing and or sale of U-235 produced using the ASP (as so amended, the "U-235 license"). The exclusive U-235 license was for the global development of the ASP technology and production of U-235 and global for the distribution, marketing and sale of U-235. In connection with the U-235 license we made an upfront payment of $100,000 and agreed to pay certain royalties (the greater of $50 per k.g. of U-235 and 10% of profits) and a 33% sublicensing revenue share of any cash consideration we may receive for any sublicenses we may grant. Klydon had the right to terminate the exclusivity of the U-235 license in the event that the licensee ceased carrying on activities of U-235 enrichment for a period longer than 24 consecutive months. Klydon had no other rights to terminate the U-235 license. Effective July 26, 2022, the parties agreed to terminate the U-235 license, which was superseded and replaced by a new license agreement (described under the heading "Omnibus Klydon License" below).

Omnibus Klydon License. On July 26, 2022, ASP Isotopes UK Ltd, as licensee, entered into a license agreement with Klydon, as licensor, pursuant to which ASP Isotopes UK Ltd acquired from Klydon an exclusive license to use, develop, modify, improve, subcontract and sublicense certain intellectual property rights relating to the ASP technology for the production, distribution, marketing and sale of all isotopes produced using the ASP technology (the "Klydon license agreement"). The intellectual property rights granted to us through the Klydon license agreement include all existing and/or future proprietary rights of Klydon relating to the ASP technology, whether or not such rights have been registered including the copyright, designs, know-how, patents and trademarks (although Klydon currently has no such patents, patent applications or copyrights). The Klydon license agreement superseded and replaced the Mo-100 license and U-235 license described above. The Klydon license agreement is royalty-free, has a term of 999 years and is worldwide for the development of the ASP technology and the distribution, marketing and sale of isotopes. Future production of isotopes is limited to member countries of the Nuclear Suppliers Group. In connection with the Klydon license agreement we agreed to make an upfront payment of $100,000 (to be included within the payments we make under the Turnkey Contract (described below) and deferred payments of $300,000 over 24 months. Klydon has the right to terminate the exclusivity of the Klydon license agreement in the event that the licensee ceases to carry on activities related to isotope enrichment for a period longer than 24 consecutive months.

Turnkey Contract. On November 1, 2021, ASP South Africa and Klydon, as the contractor, entered into a contract under which Klydon has been appointed to supply to ASP South Africa a complete turnkey Molybdenum-100 enrichment plant (the "Turnkey Contract"). The activities to be undertaken or performed by Klydon include: taking control of the assets acquired in the Molybdos Business Rescue Auction; the design of a Molybdenum-100 enrichment facility with target manufacturing capability of 20 Kg p.a of 95% and above enriched Molybdenum isotope; the supply of components, equipment and labor required for 20 Kg p.a.; the installation, testing and commissioning of the Molybdenum enrichment plant, including production of targets to be used by customers in cyclotrons; securing all required approvals, regulatory authorizations and other required consents for the operation of the plant; providing training to local ASP Isotopes South Africa (Proprietary) Limited personnel to enable them to operate the plant going forward; and providing warranties in relation to the performance targets of the plant which are required to be met. Klydon will be responsible for liaising with the relevant South African authorities including the South African Non Proliferation Council, the Nuclear Suppliers Group and International Atomic Energy Agency to ensure that the Turnkey Contract and the Molybdenum-100 enrichment plant are compliant with international laws and guidelines. The consideration to be paid by ASP Isotopes South Africa (Proprietary) Limited under the Turnkey Contract is a maximum of $12.8 million, in the following stages: (1) $6.8 million in an initial proof of concept stage (which stage will end at the point of first production of Mo-100); and (2) $6.0 million for increasing production capacity through modular construction (from the expected initial capacity of 5 kg p.a. to 20 kg p.a. of 95% enriched molybdenum-100). The Company's management expects that the initial proof of concept stage (Phase 1) will be completed during the second half of 2022 and an additional 12 months will be needed for completion of the secondary investment stage (Phase 2).

Letter of Intent for Klydon Shares or Assets. On September 30, 2021, ASP South Africa entered into a letter of intent with Klydon and Isotope Separation Technology (Pty)Ltd (Klydon's largest shareholder which is owned by Dr Ronander and Dr Strydom) with respect to the acquisition of all of the outstanding shares or substantially all of the assets of Klydon. Under the letter of intent (as amended), Klydon has agreed to negotiate with us on an exclusive basis. We are in the process of preparing, and negotiating with Klydon, the share purchase agreement and related agreements with respect to the Klydon acquisition, but such transaction documents are not yet in agreed form and as of the date hereof, several issues remain open that, if not resolved, will prevent us from entering into a definitive agreement with respect to the Klydon acquisition. We do not expect the timing or success of the Klydon acquisition to have a material effect on either our business or our financial results in the future because of the existing commercial agreements that we have with Klydon. We believe that the Klydon license agreement and the Turnkey Contract provide us with the requisite intellectual property rights and personnel (through Klydon's workforce) that we need to conduct our business as currently proposed to be conducted. While an acquisition of Klydon would be beneficial to us in terms of adding employees in South Africa, the services of the individuals who are working to deliver the Mo-100 enrichment plant are already assured under the Turnkey Contract with Klydon. In the event we do not complete an acquisition of Klydon by the completion of the Turnkey Contract (after Klydon has delivered a fully commissioned Mo-100 enrichment plant), we would likely need to enter into a new agreement with Klydon as a contractor in order to operate the new Mo-100 enrichment plant. Alternatively, we would need to hire employees who would be able to operate the new Mo-100 enrichment plant.

Acquisition of Silicon-28 Plant Assets. On July 26, 2022, we acquired assets comprising a dormant Silicon-28 aerodynamic separation processing plant from Klydon for ZAR 6,000,000 (which at the then current exchange rate was approximately USD 364,000), which will be payable to Klydon on the later of 180 days of the acquisition and the date on which the assets generate any revenues of any nature.

Chief Scientific Adviser Agreement with Dr Ronander. In January 2022, we entered into an agreement with Dr Einar Ronander pursuant to which he agreed to serve as chief scientific adviser to the board of directors for quarterly payments of $50,000. The agreement has an initial term of one year and will automatically renew for successive one year periods unless either party provides notice of termination.

Consulting Agreements with Dr Strydom and Dr Ronander. In January 2022, we entered into consulting agreements with Dr Einar Ronander, who serves as Chief Scientific Adviser to our board of directors, and Dr Hendrik Strydom, one of our directors, pursuant to which each of Dr Ronander and Dr Strydom agreed to assist us in developing the ASP technology for the enrichment of uranium and potentially forming a licensing transaction relating to the enrichment of uranium. In addition, Dr Ronander agreed to assist us obtaining all regulatory approvals and permits for the company's operations. The consulting agreements had no upfront cash payment or regular payment but provide for cash payments to the consultants in the event that a licensing upfront payment is paid to the company in connection with any type of licensing transaction relating to the enrichment of uranium, with the amount of such cash payments to the consultants to be determined based upon the date of receipt of any such licensing upfront payment: 25% of any licensing upfront payment received within 3 months will be paid to the consultants (75% retained by the company), 15% of any licensing upfront payment received between 3 – 9 months will be paid to the consultants (85% retained by the company), and 5% of any licensing upfront payment received after 9 months will be paid to the consultants (95% retained by the company). The consulting agreements have no fixed term but either party may terminate the consulting agreement (i) without cause upon 30 days' written notice to the other party or (ii) effective immediately upon written notice to the other party, if the other party breaches the agreement (subject to a 10-day cure period if such breach is capable of cure).

Indemnification Arrangements with Drs Ronander and Strydom. In connection with the other agreements entered into with Dr Einar Ronander and Dr Hendrik Strydom in January 2022, we have agreed to indemnify each of Dr Ronander and Dr Strydom against any and all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs, or expenses of whatever kind, including professional fees and reasonable attorneys' fees, that are incurred by the indemnitees, arising out of any claim by a third party creditor related to an agreement such third party creditor entered into with Klydon, Dr Einar and Dr Strydom and Klydon, and Isotope Separation Technology (Pty) Ltd (the largest shareholder of Klydon, which is owned by Dr Ronander and Dr Strydom) in May 2012 related to, among other things, (i) the sale of shares in Isotope Separation Technology (Pty) Ltd by such third party creditor to Dr Ronander and Dr Strydom and (ii) the acknowledgment of certain loan obligations owed by Klydon to Isotope Separation Technology (Pty) Ltd and such third party creditor and the repayment terms for such loan obligations. Our indemnification obligations under the letter agreements with Dr Ronander and Dr Strydom are subject to a maximum aggregate liability of $3,200,000 (which is approximately the amount that may be owed to the third party creditor). We are aware of the possibility of claims by the third party creditor related to the failure by Klydon to make repayment of certain loan obligations under this May 2012 agreement, but no such claim or litigation has been asserted or threatened. We do not believe Klydon, Isotope Separation Technology (Pty) Ltd or any other third party is obligated to provide indemnity against any such claim. We do not believe any payment obligation under our indemnification arrangements with Dr Ronander and Dr Strydom is currently probable.

Advisor Agreement with ChemBridges LLC

We have entered into an Advisor Agreement with ChemBridges LLC dated October27, 2021. One of our directors, Sergey Vasnetsov, is the President and owner of ChemBridges LLC. Under the Advisor Agreement, ChemBridges LLC agreed to provide subject matter expertise on a wide range of commercial activity and strategic execution of key global business objectives, including but not limited to the advisory services on strategy, M&A, R&D, organic growth, operational optimization, commercial excellence, IR and corporate governance. Compensation under the Advisor Agreement includes (i) an initial grant of 600,000 shares of restricted common stock that vest annually over three years and (ii) an award of common stock with a value of $40,000 each quarter for the first 8 calendar quarters following the first anniversary of the Advisor Agreement (totaling $160,000 annually). We issued 600,000 shares of restricted common stock that vest quarterly over one year in connection

with an amendment to the Advisor Agreement in July 2022. The Advisor Agreement may be terminated by either party without cause upon 180 days advance written notice. We may terminate the Advisor Agreement for material breach of the agreement if not cured after two weeks' written notice. We will have no obligation to the advisor upon any termination of the agreement except for reimbursement of any unreimbursed expenses and pro-rata vesting of the equity awards issued under the agreement through the effective date of the termination.

Indemnification Agreements and Directors' and Officers' Liability Insurance

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us to indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, penalties fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.

Policies and Procedures for Related Party Transactions

Our board of directors has adopted a written related person transaction policy, to be effective upon the consummation of this offering, setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction with an unrelated third party and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of September 30, 2022, and as adjusted to reflect the sale of our common stock offered by us in this offering, for:

- our named executive officer;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock.

We have determined beneficial ownership in accordance with the rules of the SEC, which generally means that a person has beneficial ownership of a security if he or she possesses sole or shared voting or investment power of that security, including options that are currently exercisable or exercisable within 60 days of September 30, 2022. Unless otherwise indicated, to our knowledge, the persons and entities named in the table below have sole voting and sole investment power with respect to all shares that they beneficially own, subject to community property laws where applicable. The information in the table below does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Sections 13(d) and 13(g) of the Securities Act.

We have based our calculation of the percentage of beneficial ownership prior to this offering on 30,107,127 shares of our common stock outstanding as of September30, 2022. We have based our calculation of the percentage of beneficial ownership after this offering on 32,107,127 shares of our common stock outstanding immediately after the closing of this offering. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that individual or entity, shares of common stock subject to options, convertible securities or other rights, held by such person that are currently exercisable or will become exercisable within 60 days of September 30, 2022, are considered outstanding. We did not, however, deem such shares outstanding for the purpose of computing the percentage ownership of any other individual or entity.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o 433 Plaza Real, Suite 275, Boca Raton, Florida 33432.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
Greater than 5% Holders:			
Broadband Capital Investments LLC[(1)]	1,600,000	5.3%	5.0%
Einar Ronander, Ph.D.[(2)]	3,597,424	11.9%	11.2%
Executive Officers and Directors:			
Paul Mann[(3)]	3,287,111	10.8%	10.2%
Robert Ainscow[(4)]	326,167	1.1%	1.0%
Hendrick Strydom, Ph.D.[(5)]	3,597,423	11.9%	11.2%
Josh Donfeld[(6)]	856,000	2.8%	2.7%
Duncan Moore, Ph.D.[(7)]	256,000	*	*
Sergey Vasnetsov[(8)]	2,200,000	7.3%	6.9%
Todd Wider, M.D.[(9)]	256,000	*	*
All current executive officers and directors as a group (7 persons)[(10)]	10,778,701	35.8%	33.6%

* Represents beneficial ownership of less than 1%.

(1) The address of Broadband Capital Investments LLC is 105 S Narcissus Avenue, Suite 705, West Palm Beach, FL 33401. Michael Rapoport serves as managing member of Broadband Capital Investments, LLC, and in such capacity has voting and dispositive power over the securities held by Broadband Capital Investments, LLC.

(2) Such shares are held by Carlein Investments (Pty) Ltd whose address is Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184. Dr. Ronander has voting and dispositive power over such shares.

(3) Consists of (i) 1,550,000 shares of common stock held by Mr. Mann, (ii) 1,500,000 shares of performance-based restricted common stock granted by us to Mr. Mann in October 2021 and (iii) 237,111 shares of common stock issuable upon exercise of options held by Mr. Mann exercisable within 60 days of September 30, 2022.

(4) Consists of (i) 250,000 shares of common stock held by Mr. Ainscow and (ii) 76,167 shares of common stock issuable upon exercise of options held by Mr. Ainscow exercisable within 60 days of September 30, 2022.

(5) Such shares are held by Tianne Holdings (Pty) Ltd whose address is Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184. Dr. Strydom has voting and dispositive power over such shares.

(6) Consists of 56,000 shares of common stock issuable upon exercise of options held by Mr. Donfeld exercisable within 60 days of September 30, 2022.

(7) Consists of 56,000 shares of common stock issuable upon exercise of options held by Dr. Moore exercisable within 60 days of September 30, 2022.

(8) 1,000,000 of such shares are held by Elista LLC (which is owned by Eliona Trust, a family trust, of which Mr. Vasnetsov is a trustee) whose address is P.O. Box 2291, Toa Baja 00951 Puerto Rico. Mr. Vasnetsov has voting and dispositive power over such shares as trustee. 600,000 of such shares, which are restricted stock that vest annually over three years and are subject to forfeiture, and 600,000 of such shares, which are restricted stock that vest over one year and are subject to forfeiture, are held by ChemBridges LLC whose address is P.O. Box 2291, Toa Baja 00951 Puerto Rico. Mr. Vasnetsov has voting and dispositive power over such shares as the President and owner of ChemBridges LLC.

(9) Consists of 56,000 shares of common stock issuable upon exercise of options held by Dr. Wider exercisable within 60 days of September 30, 2022.

(10) Includes the shares described in notes 3, 4, 5, 6, 7 and 8 above.

DESCRIPTION OF CAPITAL STOCK

General

As of the closing of this offering, our authorized capital stock will consist of 500,000,000shares of common stock, par value $0.01 per share, and 10,000,000 shares of preferred stock, par value $0.01 per share.

The following descriptions of our capital stock and provisions of our Certificate of Incorporation and our Bylaws are summaries and are qualified by reference to the full text of those documents, copies of which will be filed with the SEC as exhibits to the registration statement of which this prospectus forms a part. The following summary of relevant provisions of the DGCL is qualified by the full text of such provisions. The description of our capital stock reflects changes to our capital structure that will occur prior to the closing of this offering.

Because these are only summaries, they do not contain all the information that may be important to you. We expect to adopt a restated certificate of incorporation and restated bylaws that will become effective upon the completion of this offering, and this description summarizes provisions that are expected to be included in these documents.

Common Stock

Outstanding Shares

As of September 30, 2022, we had 30,107,127 shares of common stock outstanding, held of record by 96 stockholders.

Dividend Rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock will be entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

Voting Rights

Holders of common stock will be entitled to one vote for each share on all matters submitted to a vote of stockholders.

Our Certificate of Incorporation will not provide for cumulative voting for the election of directors. Our Certificate of Incorporation and Bylaws will establish a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of our stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms.

No Preemptive or Similar Rights

Our common stock will not be entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

If we become subject to a liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Fully Paid and Non-Assessable

All of the outstanding shares of our common stock are, and the shares of our common stock to be issued pursuant to this offering will be, fully paid and non-assessable.

Preferred Stock

No shares of preferred stock will be issued or outstanding immediately after the offering contemplated by this prospectus. Our Certificate of Incorporation will authorize our board of directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or any stock exchange, the authorized shares of preferred stock will be available for issuance without further action by the holders of our common stock. Our board of directors will be able to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional or other special rights, and the qualifications, limitations, or restrictions thereof, including:

- the designation of the series;
- the number of shares of the series, which our board of directors may, except where otherwise provided in the preferred stock designation, increase (but not above the total number of authorized shares of the class) or decrease (but not below the number of shares then outstanding);
- whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;
- the dates at which dividends, if any, will be payable;
- the redemption or repurchase rights and price or prices, if any, for shares of the series;
- the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;
- the amounts payable on shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of our affairs;
- whether the shares of the series will be convertible into shares of any other class or series, or any other security, of us or any other entity, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;
- restrictions on the issuance of shares of the same series or of any other class or series; and
- the voting rights, if any, of the holders of the series.

We could issue a series of preferred stock that could, depending on the terms of the series, impede or discourage an acquisition attempt or other transaction that some, or a majority, of the holders of our common stock might believe to be in their best interests or in which the holders of our common stock might receive a premium over the market price of the shares of our common stock. Additionally, the issuance of preferred stock may adversely affect the rights of holders of our common stock by restricting dividends on the common stock, diluting the voting power of the common stock, or subordinating the liquidation rights of the common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our common stock.

Registration Rights

Our subscription agreements with certain investors provides certain holders the right, following the date of this prospectus, to request that their shares be included in a registration statement that we are otherwise filing.

Anti-Takeover Matters in our Governing Documents and Under Delaware Law

Our Certificate of Incorporation and our Bylaws will contain, and the DGCL contains, provisions that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile or abusive change of control, and enhance the ability of our board of directors to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an antitakeover effect and may delay, deter, or prevent a merger or acquisition by means of a tender offer, a proxy contest, or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

Authorized but unissued capital stock

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of Nasdaq. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger, or otherwise.

Classified board of directors

Our Certificate of Incorporation will provide that our board of directors will be divided into three classes, with the classes as nearly equal in number as possible and each class serving three-year staggered terms. Directors may only be removed from our board of directors for cause by the affirmative vote of at least 66⅔ of the voting power of all of our then-outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class. In addition, our Certificate of Incorporation will provide that, subject to the rights granted to one or more series of preferred stock then outstanding, any newly created directorship on the board of directors that results from an increase in the number of directors and any vacancies on our board of directors will be filled only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, or by a sole remaining director. After this offering, a director chosen to fill a position resulting from an increase in the number of directors will hold office until the next election of the director's class and until the director's successor is duly elected and qualified, or until the director's earlier death, resignation or removal. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers, changes in control of us or changes in our management.

Delaware Anti-Takeover Law

After this offering, we will be subject to Section 203 of the DGCL, which is an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date that the person became an interested stockholder, unless the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a business combination includes a merger, asset or stock sale, or another transaction resulting in a financial benefit to the interested stockholder. Generally, an interested stockholder is a person who, together with affiliates and associates, owns 15% or more of the corporation's outstanding voting stock or is the corporation's affiliate or associate and was the owner of 15% or more of the corporation's outstanding voting stock at any time within the three-year period immediately before the date of determination. The existence of this provision may have an anti-takeover effect with respect to transactions that are not approved in advance by our board, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

No cumulative voting

Under Delaware law, the right to vote cumulatively does not exist unless the certificate of incorporation specifically authorizes cumulative voting. Our Certificate of Incorporation will not authorize cumulative voting. Therefore, stockholders holding a majority of the shares of our stock entitled to vote generally in the election of directors will be able to elect all of our directors.

Special stockholder meetings

Our Certificate of Incorporation will provide that special meetings of our stockholders may be called at any time only by or at the direction of the board of directors, the chair of the board of directors or our Chief Executive Officer. Our Bylaws will prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers or changes in control or management.

Director nominations and stockholder proposals

Our Bylaws will establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be "properly brought" before a meeting, a

stockholder will have to comply with advance notice requirements and provide us with certain information. Generally, to be timely, a stockholder's notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the immediately preceding annual meeting of stockholders. Our Bylaws will also specify requirements as to the form and content of a stockholder's notice. Our Bylaws will allow the chair of a meeting of the stockholders to adopt rules and regulations for the conduct of that meeting that may have the effect of precluding the conduct of certain business at that meeting if the rules and regulations are not followed. These provisions may also defer, delay, or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control.

Stockholder action by written consent

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice, and without a vote if a consent or consents in writing, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of stock entitled to vote thereon were present and voted, unless the certificate of incorporation provides otherwise. Our Certificate of Incorporation will preclude stockholder action by written consent, unless such action is recommended by all directors then in office.

Amendment of Certificate of Incorporation or Bylaws

The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Upon the closing of this offering, our Bylaws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders of at least 66⅔% of the votes which all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 66⅔% of the votes which all our stockholders would be entitled to cast in any election of directors will be required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our Certificate of Incorporation described above.

The foregoing provisions of our Certificate of Incorporation and our Bylaws could discourage potential acquisition proposals and could delay or prevent a change in control. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by our board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares of common stock that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in our management or delaying or preventing a transaction that might benefit you or other minority stockholders.

Exclusive forum

Our Certificate of Incorporation will provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware be the sole and exclusive forum for: (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of fiduciary duty owed by any director, officer, agent, or other employee or stockholder of our company to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the DGCL, our Certificate of Incorporation or our Bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (4) any action asserting a claim governed by the internal affairs doctrine, in each case subject to such Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. It will further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolutions of any complaint asserting a cause of action arising under the Securities Act. The exclusive forum clauses described above shall not apply to suits

brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Although we believe these provisions benefit us by providing increased consistency in the application of applicable law in the types of lawsuits to which they apply, the provisions may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings and there is uncertainty as to whether a court would enforce such provisions. In addition, investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. It is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in our Certificate of Incorporation to be inapplicable or unenforceable in such action. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our Certificate of Incorporation.

Limitations of liability and indemnification

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. Our Certificate of Incorporation includes a provision that eliminates the personal liability of directors for monetary damages to the corporation or its stockholders for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions is to eliminate the rights of us and our stockholders, through stockholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any breaches of the director's duty of loyalty, any acts or omissions not in good faith or that involve intentional misconduct or knowing violation of law, any authorization of dividends or stock redemptions or repurchases paid or made in violation of the DGCL, or for any transaction from which the director derived an improper personal benefit.

Our Bylaws will generally provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We also are expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers and certain employees for some liabilities. We believe these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, indemnification and advancement provisions in our Certificate of Incorporation and our Bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

We intend to enter into an indemnification agreement with each of our directors and executive officers as described in "Certain Relationships and Related Party Transactions — Indemnification agreements." Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors or executive officers, we have been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

Transfer Agent and Registrar

Upon the closing of this offering, the transfer agent and registrar for our common stock will be American Stock Transfer & Trust Company, LLC. The transfer agent's address is 6201 15th Avenue, Brooklyn, New York 11219.

Nasdaq Listing

We have applied to list our common stock on the Nasdaq Capital Market under the symbol "ASPI."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and we cannot predict the effect, if any, that market sales of shares of our common stock or the availability of shares of our common stock for sale will have on the market price of our common stock prevailing from time to time. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Following the completion of this offering, based on the number of shares of our capital stock outstanding as of September 30, 2022, we will have a total of 32,107,127 shares of our common stock. Of these outstanding shares, all of the 2,000,000 shares of common stock sold in this offering will be freely tradable, except that any shares purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act, would only be able to be sold in compliance with the Rule 144 limitations described below.

The remaining outstanding shares of our common stock will be deemed "restricted securities" as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which rules are summarized below. In addition, all of our executive officers, directors and holders of substantially all of our common stock and securities convertible into or exchangeable for our common stock have entered into market standoff agreements with us or lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our stock for at least 180 days following the date of this prospectus. As a result of these agreements, subject to the provisions of Rule 144 or Rule 701, shares will be available for sale in the public market as follows:

- beginning on the date of this prospectus, the 2,000,000 shares of common stock sold in this offering will be immediately available for sale in the public market;
- beginning 181 days after the date of this prospectus, subject to certain exceptions as described in the section titled "Underwriting" below, additional shares of common stock will become eligible for sale in the public market, of which 14,376,125 shares will be held by affiliates and subject to the volume and other restrictions of Rule 144, as described below; and
- the remainder of the shares of common stock will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below.

Lock-Up Agreements

We, our officers, directors and holders of substantially all of our capital stock and securities convertible into or exchangeable for our capital stock have agreed or will agree, with the underwriters, that, subject to certain exceptions, for a period of 180 days after the date of this prospectus, we and they will not, and will not cause or direct any of our or their respective affiliates to, without the prior written consent of Revere Securities, LLC, (i) offer, sell, contract to sell, pledge, grant any option to purchase, lend or otherwise dispose of any shares of common stock, any options or warrants to purchase any shares of common stock or any securities convertible into or exchangeable for or that represent the right to receive shares of our common stock, (ii) engage in any hedging or other transaction or arrangement (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) which is designed to or which reasonably could be expected to lead to or result in a sale, loan, pledge or other disposition (whether by such holder or someone other than such holder), or transfer of any of the economic consequences of ownership, in whole or in part, directly or indirectly, of any shares of common stock or derivative instruments, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of common stock or other securities, in cash or otherwise, or (iii) otherwise publicly announce any intention to engage in or cause any action or activity described in clauses (i) or (ii) above. Revere Securities, LLC may, in their discretion, release any of the securities subject to lock-up agreements at any time. When determining whether or not to release our common stock and other securities from lock-up agreements, Revere Securities, LLC will consider, among other factors, the holder's reasons for requesting the release, the

number of shares for which the release is being requested and market conditions at the time of the request. In the event of such a release or waiver for one of our directors or officers, Revere Securities, LLC shall provide us with notice of the impending release or waiver at least three business days before the effective date of such release or waiver and we will announce the impending release or waiver by issuing a press release at least two business days before the effective date of the release or waiver.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to the public company reporting requirements of Section 13 or Section 15(d) of the Exchange Act for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares of our common stock proposed to be sold for at least six months is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares of our common stock on behalf of our affiliates are entitled to sell upon expiration of the market standoff agreements and lock-up agreements described above, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our capital stock then outstanding, which will equal 321,071shares immediately after this offering; or
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.
- Sales under Rule 144 by our affiliates or persons selling shares of our common stock on behalf of our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our capital stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701.

Registration Statement

We intend to file a registration statement on Form S-8 under the Securities Act promptly after the closing of this offering to register shares of our common stock issued or reserved for issuance under our 2022 Plan. The registration statement on Form S-8 is expected to become effective immediately upon filing, and shares of our common stock covered by the registration statement will then become eligible for sale in the public market, subject to the Rule 144 limitations applicable to affiliates, vesting restrictions and any applicable market standoff agreements and lock-up agreements. See the section captioned “Executive Compensation — Employee Benefit and Equity Incentive Plans” for a description of our equity compensation plans.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS TO NON-U.S. HOLDERS

The following is a summary of the material U.S. federal income tax considerations to non-U.S. holders (as defined below) of the ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all potential U.S federal income tax considerations relating thereto, does not address the potential application of the Medicare contribution tax on net investment income, and does not address any U.S. estate or gift tax consequences, generation-skipping tax, the excise tax on stock repurchases, or any tax consequences arising under any state, local or foreign tax laws, or any other U.S. federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations promulgated thereunder ("Treasury Regulations"), judicial decisions and published rulings and administrative pronouncements of the IRS, all as in effect on the date of this prospectus supplement. Any of the authorities on which this summary is based could be changed in a material and adverse manner possibly with retroactive effect, at any time. We have not requested a ruling from the Internal Revenue Service ("IRS") with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This discussion is limited to non-U.S. holders who hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the U.S. federal income tax consequences that may be relevant to an individual holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to non-U.S. holders subject to special rules under the U.S. federal income tax laws, including:

- certain former citizens or long-term residents of the United States;
- partnerships or other pass-through entities (and investors therein);
- "controlled foreign corporations";
- "passive foreign investment companies";
- corporations that accumulate earnings to avoid U.S. federal income tax;
- banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities;
- tax-exempt organizations and governmental organizations;
- tax-qualified retirement plans;
- persons subject to the alternative minimum tax;
- persons subject to special tax accounting rules under Section 451(b) of the Code;
- persons that own or have owned, actually or constructively, more than 5% of our common stock;
- persons who have elected to mark securities to market; and
- persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy or integrated investment.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS.

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a "U.S. person" or a partnership (including any entity or arrangement treated as a partnership) or other pass-through entity for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (including any entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person for U.S. federal income tax purposes.

For purposes of this discussion, a non-U.S. holder does not include a partnership (including for this purpose any entity that is treated as a partnership or other pass-through entity for U.S. federal income tax purposes). If a partnership or other pass-through entity is a beneficial owner of our common stock, the tax treatment of a partner or other owner will generally depend upon the status of the partner (or other owner) and the activities of the entity. If you are a partner (or other owner) of a pass-through entity that acquires our common stock, you should consult your tax advisor regarding the tax considerations of acquiring, owning and disposing of our common stock. Also, it is important to note that the rules for determining whether an individual is a non-resident alien for income tax purposes differ from those applicable for estate tax purposes.

If you are an individual non-U.S. citizen, you may, in some cases, be deemed to be a resident alien (as opposed to a nonresident alien) by virtue of being present in the United States for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. Generally, for this purpose, all the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year, are counted.

Resident aliens are generally subject to U.S. federal income tax as if they were U.S. citizens. Individuals who are uncertain of their status as resident or nonresident aliens for U.S. federal income tax purposes are urged to consult their own tax advisors regarding the U.S. federal income tax consequences of the ownership or disposition of our common stock.

Distributions on Our Common Stock

If we distribute cash or other property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts distributed in excess of our current and accumulated earnings and profits will constitute a return of capital and will first be applied against and reduce a non-U.S. holder's tax basis in our common stock, but not below zero. Any distribution in excess of a non-U.S. holder's basis will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described in the "*Gain on Disposition of Our Common Stock*" section below.

Subject to the discussion below regarding effectively connected income, backup withholding and FATCA (as defined below), dividends paid to a non-U.S. holder of our common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the distribution in which case the non-U.S. holder would be entitled to a refund from the IRS for the withholding tax on the portion of the distribution that exceeded our current and accumulated earnings and profits. In order to obtain reduced rate of U.S. federal withholding tax under an applicable income tax treaty, a non-U.S. holder will be required to furnish the applicable withholding agent with a valid IRS Form W-8BEN or IRS Form W-8BEN-E (or other applicable documentation) certifying such non-U.S. holder's qualification for the reduced rate. This certification must be provided to the applicable withholding agent before the payment of dividends and must be updated periodically. If the non-U.S. holder holds our common

stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such holder's U.S. trade or business (and are attributable to such holder's permanent establishment or fixed base in the United States if required by an applicable tax treaty), the non-U.S. holder will generally be exempt from U.S. federal withholding tax, provided that the non-U.S. holder furnishes a valid IRS Form W-8ECI (or applicable successor form) to the applicable withholding agent.

However, any such effectively connected dividends paid on our common stock generally will be subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Non-U.S. holders that do not provide the required certification on a timely basis, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain on Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding tax and FATCA, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized on the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "U.S. real property interest" by reason of our status as a "U.S. real property holding corporation" ("USRPHC"), for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and our common stock is not regularly traded on an established securities market during the calendar year in which the sale or other disposition occurs.

Determining whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests. In general, a corporation is a USRPHC if the fair market value of its "U.S. real property interests" equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business. In the event that we are determined to be a USRPHC, gain will not be subject to tax as U.S. trade or business income under Section 897 of the Code if a non-U.S. holder's holdings (direct and indirect) at all times during the applicable period constituted 5% or less of our common stock, provided that our common stock was regularly traded on an established securities market during such period. We believe we are not currently and we do not anticipate becoming a USRPHC for U.S. federal income tax purposes. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other business assets, there can be no assurance that we are not a USRPHC or will not become one in the future. Prospective investors are encouraged to consult their own tax advisors regarding the possible tax consequences to them if we are, or were to become, a USRPHC.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates in the same manner as if such non-U.S. holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected

earnings and profits for the taxable year, as adjusted for certain items. Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), but may be offset by certain U.S.-source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses. Gain described in the third bullet point above will generally be subject to U.S. federal income tax in the same manner as gain that is effectively connected with the conduct of a U.S. trade or business (subject to any provisions under an applicable income tax treaty), except that the branch profits tax generally will not apply.

Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Annual reports are required to be filed with the IRS and provided to each non-U.S. holder indicating the amount of dividends on our common stock paid to such holder and the amount of any tax withheld with respect to those dividends. These information reporting requirements apply even if no withholding was required because the dividends were effectively connected with the holder's conduct of a U.S. trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

Backup withholding, currently at a 24% rate, generally will not apply to payments to a non-U.S. holder of dividends on or the gross proceeds of a disposition of our common stock provided the non-U.S. holder furnishes the required certification for its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or certain other requirements are met.

Backup withholding is not an additional tax. If backup withholding results in an overpayment of taxes, a refund may be obtained, provided that the required information is timely furnished to the IRS. If any amount is withheld under the backup withholding rules, the non-U.S. holder should consult with a U.S. tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-U.S. holder's U.S. federal income tax liability, if any.

FATCA Withholding Taxes

The Foreign Account Tax Compliance Act ("FATCA"), as reflected in Sections 1471 through 1474 of the Code, imposes a U.S. federal withholding tax at a rate of 30% on certain payments, including dividends paid in respect of our common stock and the gross proceeds of disposition on our common stock, made to a "foreign financial institution" (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or an exemption applies. FATCA also generally will impose a U.S. federal withholding tax of 30% on certain payments, including dividends paid in respect of our common stock and the gross proceeds of disposition on our common stock, made to a non-financial foreign entity unless such entity provides the withholding agent a certification identifying certain direct and indirect U.S. owners of the entity or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. FATCA currently applies to dividends paid on our common stock. Proposed Treasury Regulations, which may be relied upon until final Treasury Regulations are finalized, currently eliminate FATCA withholding on payments of gross proceeds from sales or other dispositions of our common stock.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS SUCH AS ESTATE AND GIFT TAX.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated , 2022 between us and Revere Securities LLC, as representative of the underwriters named below, or the "Representative," and the book-running managers of this offering, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the shares of common stock shown opposite its name below:

Underwriter	Number of Shares
Revere Securities LLC	2,000,000
Total	2,000,000

Under the terms of the underwriting agreement, the underwriters are committed to purchase all of the shares offered by this prospectus (other than the shares subject to the underwriters' option to purchase additional shares), if the underwriters buy any of such shares. The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 45 days from the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of 300,000 shares from us at the public offering price set forth on the cover page of this prospectus, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to certain conditions, to purchase a number of additional shares approximately proportionate to that underwriter's initial purchase commitment as indicated in the table above.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers, which may include the underwriters, at that price less a concession not in excess of per share of common stock. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of per share of common stock to certain brokers and dealers. After the initial offering, the Representative may change the offering price and other selling terms.

We have paid the Representative a $10,000 advance upon the execution of the Letter of Engagement between us and the Representative, dated May 4, 2022 (as amended), to be credited against the accountable expenses actually incurred by the Representative in connection with this Offering. To the extent that the accountable expenses actually incurred by the Representative in connection with this Offering amount to less than $10,000, the difference will be reimbursed to us in compliance with FINRA Rule 5110(g)(4)(A).

Private Offering

In late November 2021 through April 2022, we sold and issued an aggregate of 3,012,280shares of common stock to a total of 74 accredited investors at a purchase price of $2.00 per share, for an aggregate purchase price of $6,024,560. Revere Securities LLC acted as placement agent in connection with such offering of shares of our common stock pursuant to an engagement letter dated November 8, 2021 (the “Private Offering Engagement Letter”), and in connection therewith we agreed to pay to Revere Securities LLC (i) a cash fee equal to 8.0% of the aggregate gross proceeds raised in such offering and (ii) shares of our common stock equal to 4.0% of the aggregate number of shares of common stock sold in such offering. Accordingly, we are required to issue to Revere Securities LLC 120,491 shares of our common stock in accordance with the terms of the Private Offering Engagement Letter. Though issued pursuant to the Private Offering Engagement Letter and in connection with an offering that occurred between November 2021 through April 2022, the 120,491 shares of our common stock issuable to Revere Securities LLC have been deemed compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(e)(1) of FINRA. These shares, when issued, may not be sold, transferred, assigned, pledged or hypothecated or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities for a period of 180 days following the effective date of the registration for this offering, except that they may be assigned, in whole or in part, to any officer or partner of the underwriter, and to members of the underwriting syndicate or selling group (or to officers or partners thereof), or as otherwise permitted, in compliance with FINRA Rule 5110(e)(2). As part of its compensation for acting as placement agent in the private offering. Revere Securities LLC received an irrevocable right of first refusal during the 12-month period beginning after the completion date of the private placement to act as investment banker, book-runner, and/or placement agent, at the Representative’s sole discretion, for each and every future public and private equity offering of the Company or any of its subsidiaries. This right of first refusal terminates upon the completion of this initial public offering. This right of first refusal First Refusal granted hereunder may be terminated by the Company for “Cause,” which is defined as a material breach by Reverse Securities LLC of the Private Offering Engagement Letter or a material failure by the Revere Securities LLC to provide the services as contemplated by the Private Offering Engagement Letter.

Tail Compensation

We have agreed to pay the Representative a cash fee equal to 8.0% of the aggregate gross proceeds received by us from the sale of our common stock in any private or public offering or other financing or capital-raising transaction of any kind within the 12 month period following the effective date of the registration statement of which this prospectus is a part, provided that such financing is provided by a party actually introduced to us by the Representative.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase additional shares.

	Per Share		Total	
	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	$	$	$	$
Underwriting discounts and commissions	$	$	$	$
Proceeds to us, before expenses	$	$	$	$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $925,000. We have paid to the Representative a $10,000 advance, which will be credited against the accountable out-of-pocket expenses that are payable by us upon completion of the offering. To the extent that the accountable expenses actually incurred by the Representative in connection with this Offering amount to less than $10,000, the difference will be reimbursed to us in compliance with FINRA Rule 5110(g)(4)(A). We have agreed to reimburse the Representative up to $150,000 for their fees and expenses of legal counsel and other out-of-pocket expenses, roadshow expenses and cost of background checks. We have also agreed to reimburse the Representative for certain of their expenses incurred in connection with the offering’s settlement and closing in an amount not to exceed $12,900. Such reimbursed fees and expenses, as set forth in the underwriting agreement, are deemed underwriting compensation for this offering by FINRA.

Listing

We have applied to list our common stock on the Nasdaq Capital Market under the symbol "ASPI." The approval of our common stock for listing on Nasdaq is a condition to the closing of this offering.

No Sales of Similar Securities

We, our officers and our directors have agreed, subject to certain specified exceptions, not to directly or indirectly, for a period of 12 months after the date of the underwriting agreement, in the case of us and 180 days after the date of the underwriting agreement, in the case of our officers and directors:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open "put equivalent position" within the meaning of Rule 16a-l(h) under the Securities Exchange Act of 1934, as amended, or otherwise dispose of, any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially,
- enter into any swap, hedge or other agreement or transaction that transfers, in whole or in part, the economic consequence of ownership of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock, or
- publicly announce an intention to do any of the foregoing for a period of 180 days after the date of this prospectus without the prior written consent of the Representative.

In addition, we and each such person agrees that, without the prior written consent of the Representative, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The Representative may, in their sole discretion and at any time or from time to time before the termination of the 180-day period release all or any portion of the securities subject to lock-up agreements.

Subject to compliance with the notification requirements under FINRA Rule 5131 applicable to lock-up agreements with our directors or officers, if the Representative, with our prior consent, agree to release or waive the restrictions set forth in a lock-up agreement with one of our directors or officers and provides us with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, we agree to announce the impending release or waiver by a press release through a major news service at least two business days before the effective date of the release or waiver.

Market Making, Stabilization and Other Transactions

The underwriters may make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters have advised us that they, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, and certain persons participating in the offering, may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either "covered" short sales or "naked" short sales.

"Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

"Naked" short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, may end any of these activities at any time.

Passive Market Making

The underwriters may also engage in passive market making transactions in our common stock on the NASDAQ in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. The underwriters are not required to engage in passive market making and, if commenced, may end passive market making activities at any time.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters, selling group members (if any) or their affiliates. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in a wide range of activities for their own accounts and the accounts of customers, which may include, among other things, corporate finance, mergers and acquisitions, merchant banking, equity and fixed income sales, trading and research, derivatives, foreign exchange, futures, asset management, custody, clearance and securities lending. The underwriters and certain of their affiliates have, from time to time, performed, and may in the future perform, various investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of its business, the underwriters and their respective affiliates may, directly or indirectly, hold long or short positions, trade and otherwise conduct such activities in or with respect to debt or equity securities and/or bank debt of, and/or derivative products. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Stamp Taxes

If you purchase shares of common stock offered in this prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus.

LEGAL MATTERS

DLA Piper LLP (US), San Diego, California will pass upon the validity of the shares of our common stock being offered by this prospectus. Carmel, Milazzo & Feil LLP, New York, New York is acting as counsel to the underwriters.

EXPERTS

The consolidated balance sheet of ASP Isotopes Inc. and Subsidiaries as of December 31, 2021, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity, and cash flows for the period from September 13, 2021 (inception) to December 31, 2021, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is included herein, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been included herein in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of our common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC maintains a website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is *www.sec.gov*.

As a result of this offering, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection at the website of the SEC referred to above. We also maintain a website at *www.aspisotopes.com* where, upon closing of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information on or that can be accessed through our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

ASP Isotopes Inc.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page
UNAUDITED CONDENSED FINANCIAL STATEMENTS AS OF AND FOR THE SIX-MONTH PERIOD ENDED JUNE 30, 2022 (Unaudited)	
Unaudited Condensed Consolidated Balance Sheets	F-2
Unaudited Condensed Consolidated Statement of Operations and Comprehensive Loss	F-3
Unaudited Condensed Consolidated Statement of Changes in Stockholders' Equity	F-4
Unaudited Condensed Consolidated Statement of Cash Flows	F-5
Notes to Unaudited Condensed Consolidated Financial Statements	F-6
FINANCIAL STATEMENTS AS OF, AND FOR THE PERIOD FROM, SEPTEMBER 13, 2021 (INCEPTION) TO DECEMBER 31, 2021	
Report of Independent Registered Public Accounting Firm	F-19
Consolidated Balance Sheet	F-20
Consolidated Statement of Operations and Comprehensive Loss	F-21
Consolidated Statement of Changes in Stockholders' Equity	F-22
Consolidated Statement of Cash Flows	F-23
Notes to Consolidated Financial Statements	F-24

ASP Isotopes Inc.
Condensed Consolidated Balance Sheets
(unaudited)

	June 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash	$ 2,813,411	$ 2,953,721
Deferred offering costs	154,200	—
Prepaid expenses and other current assets	589,340	267,562
Total current assets	3,556,951	3,221,283
Property and equipment, net	5,576,209	2,988,210
Operating lease right-of-use asset	893,892	933,145
Total assets	**$ 10,027,052**	**$ 7,142,638**
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 879,367	$ 59,679
Accrued expenses	619,101	42,500
Notes payable	33,854	46,900
Operating lease liability – current	42,412	38,072
Share liability	240,982	116,200
Total current liabilities	1,815,716	303,351
Operating lease liability – noncurrent	802,798	841,623
Total liabilities	2,618,514	1,144,974
Commitments and contingencies (Note 6)		
Stockholders' equity		
Common stock, $0.01 par value; 50,000,000 shares authorized, 29,407,127 and 20,652,500 shares issued and outstanding at June 30, 2022 and December 31, 2021, respectively	294,071	206,525
Additional paid-in capital	11,263,158	8,380,343
Accumulated deficit	(4,292,685)	(2,607,927)
Accumulated other comprehensive income	143,994	18,723
Total stockholders' equity	**7,408,538**	**5,997,664**
Total liabilities and stockholders' equity	**$ 10,027,052**	**$ 7,142,638**

The accompanying notes are an integral part of these condensed consolidated financial statements.

ASP Isotopes Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(unaudited)

	Six Months Ended June 30, 2022
Operating expenses:	
Research and development	$ 446,440
General and administrative	1,239,772
Total operating expenses	1,686,212
Loss from operations	(1,686,212)
Other income:	
Interest income	1,454
Total other income	1,454
Net loss	**$ (1,684,758)**
Net loss per share, basic and diluted	**$ (0.06)**
Weighted average shares of common stock outstanding, basic and diluted	**27,898,098**
Other comprehensive loss:	
Net loss	(1,684,758)
Foreign currency translation	125,271
Total comprehensive loss	**$ (1,559,487)**

The accompanying notes are an integral part of these condensed consolidated financial statements.

ASP Isotopes Inc.
Condensed Consolidated Statements of Changes in Stockholders' Equity
(unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2021	**20,652,500**	**$ 206,525**	**$ 8,380,343**	**$ 18,723**	**$ (2,607,927)**	**$ 5,997,664**
Issuance of common stock, net of issuance costs totaling $380,747	1,559,780	15,598	2,723,215	—	—	**2,738,813**
Issuance of common stock upon exercise of warrants	7,194,847	71,948	(71,948)	—	—	—
Stock-based compensation	—	—	231,548	—	—	**231,548**
Foreign currency translation	—	—	—	125,271	—	**125,271**
Net loss	—	—	—	—	(1,684,758)	**(1,684,758)**
Balance at June 30, 2022	**29,407,127**	**$ 294,071**	**$ 11,263,158**	**$ 143,994**	**$ (4,292,685)**	**$ 7,408,538**

The accompanying notes are an integral part of these condensed consolidated financial statements.

ASP Isotopes Inc.
Condensed Consolidated Statements of Cash Flows
(unaudited)

	Six Months Ended June 30, 2022
Cash flows from Operating activities	
Net loss	$ (1,684,758)
Adjustments to reconcile net loss to cash used in operating activities:	
Stock-based compensation	231,548
Amortization of right-of-use lease asset	37,476
Changes in operating assets and liabilities:	
Deferred offering costs	(154,200)
Prepaid expenses and other current assets	(321,778)
Accounts payable	(35,716)
Accrued expenses	576,601
Lease liability	(32,722)
Net cash used in operating activities	**(1,383,549)**
Cash flows from investing activities	
Purchases of property and equipment	(1,732,595)
Net cash used in investing activities	**(1,732,595)**
Cash flows from financing Activities	
Proceeds from issuance of common stock	3,119,560
Common stock issuance costs	(255,965)
Repayment of notes payable	(13,046)
Net cash provided by financing activities	**2,850,549**
Net change in cash	(265,595)
Effect of exchange rate changes on cash	125,285
Cash – beginning of period	2,953,721
Cash – end of period	**$ 2,813,411**
Supplemental disclosures of non-cash investing and financing activities:	
Share liability for non-cash issuance costs	$ 124,782
Purchase of property and equipment included in accounts payable	855,404

The accompanying notes are an integral part of these consolidated financial statements.

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

1. Organization

Description of Business

ASP Isotopes Inc. was incorporated in the state of Delaware on September 13, 2021 and has its principal operations in Boca Raton, Florida. ASP Isotopes Inc.'s subsidiary, ASP Isotopes Holdings Limited ("ASP Guernsey"), has its principal operations in Guernsey. ASP Guernsey's subsidiary, ASP Isotopes Holdings South Africa Proprietary Limited ("ASP South Africa"), has its principal operations in South Africa. ASP Isotopes UK Ltd, a wholly owned subsidiary of the Company, was incorporated in July 2022. ASP Isotopes Inc. and its subsidiaries are collectively referred to as "the Company" throughout these consolidated statements.

The Company is an isotope enrichment company. The Company utilizes technology developed in South Africa over the past 20 years to enrich isotopes of elements or molecules with low atomic masses. Many of these elements are unsuitable for enrichment using traditional methods such as centrifuges. The Company's first commercial product will be Molybdenum 100 ("Mo-100"), which has the potential to replace Molybdenum99, a commonly used product in the diagnostic imaging market.

Liquidity and Going Concern Uncertainty

The accompanying consolidated financial statements have been prepared on a basis which assumes the Company is a going concern and do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from any uncertainty related to the Company's ability to continue as a going concern. Such adjustments could be material. The Company has experienced net losses and negative cash flows from operating activities since its inception. The Company incurred net losses of $1,684,758 for the six months ended June 30, 2022 and $2,607,927 for the period from September 13, 2021 (inception) through December 31, 2021. The Company anticipates it will need to continue to raise capital through additional equity and/or debt financings and/or collaborative development agreements to fund its operations.

The Company currently expects that its cash of $2,813,411 as of June 30, 2022 will not be sufficient to fund its operating expenses and capital requirements for more than 12 months from the date the financial statements are issued. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Additional funding will be necessary to complete construction of the first enrichment facility and begin operations and although the Company has plans to seek additional funding, these plans are not currently probable.

There can be no assurance that the Company will achieve or sustain positive cash flows from operations or profitability. The Company is in the process of seeking additional equity financing. However, such funding may not be available on a timely basis on terms acceptable to the Company, or at all. If the Company is unable to raise additional capital when required or on acceptable terms, the Company may be required to further scale back or discontinue the advancement of product candidates, further reduce headcount, reorganize, merge with another entity, or cease operations.

Coronavirus Pandemic

In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. In order to mitigate the spread of COVID-19, governments have imposed unprecedented restrictions on business operations, travel and gatherings, resulting in a global economic downturn and other adverse economic and societal impacts. The COVID-19 pandemic and its impacts continue to evolve. We cannot predict the scope and severity of disruptions as a result of COVID-19 or their impacts on us, but business disruptions for us or any of the third parties with whom we engage, including the collaborators, contract organizations, third-party manufacturers, suppliers, regulators and other third parties with whom we conduct business could materially and negatively impact our ability to conduct our business in the manner and on the timelines presently planned. The extent to which the COVID-19 pandemic may impact our business and financial performance will depend on future developments, which are highly uncertain and

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

1. Organization (cont.)

cannot be predicted with confidence, including the scope and duration of the pandemic, the extent and effectiveness of government restrictions and other actions, including relief measures, implemented to address the impact of the pandemic, and resulting economic impacts.

The actual and perceived impact of the COVID-19 pandemic is changing daily, and its ultimate effect on our business cannot be predicted. As a result, there can be no assurance that we will not experience negative impacts associated with COVID-19, which could be significant. The COVID-19 pandemic may negatively impact our business, financial condition and results of operations causing interruptions or delays in the Company's programs and services.

2. Basis of Presentation and Summary of Significant Accounting Policies

Unaudited Financial Information

The Company's unaudited condensed consolidated financial statements included herein have been prepared in conformity with accounting principles generally accepted in the United States of America, or GAAP, and pursuant to the rules and regulations of the Securities and Exchange Commission, or SEC. In the Company's opinion, the information furnished reflects all adjustments, all of which are of a normal and recurring nature, necessary for a fair presentation of the financial position and results of operations for the reported interim periods. The Company considers events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. The results of operations for interim periods are not necessarily indicative of results to be expected for the full year or any other interim period.

Basis of Presentation and Use of Estimates

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of the Company's consolidated financial statements requires management to make estimates and assumptions that impact the reported amounts of assets, liabilities and expenses and disclosure in the Company's consolidated financial statements and accompanying notes. The most significant estimates in the Company's consolidated financial statements relate to the valuation of equity instruments and estimating our accrued research and development expenses. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may materially differ from these estimates and assumptions.

Principles of consolidation

The Company's consolidated financial statements include the accounts of ASP Isotopes Inc. and its subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Currency and currency translation

The consolidated financial statements are presented in U.S. dollars, the Company's reporting currency. The functional currency of ASP Isotopes Inc. and ASP Guernsey is the U.S. dollar. The functional currency of the Company's subsidiary ASP South Africa is the South African Rand. Adjustments that arise from exchange rate changes on transactions of each group entity denominated in a currency other than the functional currency are included in other income and expense in the consolidated statements of operations. Assets and liabilities of ASP South Africa are recorded in their South African Rand functional currency and translated into the U.S. dollar reporting currency of the Company at the exchange rate on the balance sheet date. Revenue, when recorded, and

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

expenses of ASP South Africa are recorded in their South African Rand functional currency and translated into the U.S. dollar reporting currency of the Company at the average exchange rate prevailing during the reporting period. Resulting translation adjustments are recorded to other comprehensive income (loss).

Concentration of Credit Risk and other Risks

The Company maintains its cash in bank deposit and checking accounts that at times exceed insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk.

Cash

The Company considers all highly liquid investments with original maturities at the date of purchase of three months or less to be cash equivalents. Cash and cash equivalents are stated at fair value and may include money market funds, U.S. Treasury and U.S. government-sponsored agency securities, corporate debt, commercial paper and certificates of deposit. The Company had no cash equivalents as of June 30, 2022 and December 31, 2021.

Deferred offering costs

The Company capitalizes deferred IPO costs, which primarily consist of direct, incremental legal, professional, accounting and other third-party fees relating to the Company's initial public offering. The deferred IPO costs will be offset against IPO proceeds upon the consummation of an offering. Should the planned IPO prove to be unsuccessful, these deferred costs, as well as additional expenses to be incurred, will be charged to operations.

Segment Information

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The financial information is regularly reviewed by the chief operating decision maker ("CODM"), in deciding how to allocate resources. The Company's CODM is its chief executive officer.

Fair Value of Financial Instruments

Accounting guidance defines fair value, establishes a consistent framework for measuring fair value, and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1:	Observable inputs such as quoted prices in active markets;
Level 2:	Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
Level 3:	Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

The Company had a share liability (Note 9) measured at (Level 3) fair value on a recurring basis of $240,982 as of June 30, 2022. There were no transfers among Level 1, Level 2 or Level 3 categories in the six months ended June 30, 2022. The following table provides a reconciliation of the Company's liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3):

	Share Liability
Balance, September 13, 2021	$ —
Addition on issuance of common stock	116,200
Balance, December 31, 2021	116,200
Addition on issuance of common stock	124,782
Balance, June 30, 2022	$ 240,982

The carrying amounts of accounts payable, accrued expenses and notes payable are considered to be representative of their respective fair values because of the short-term nature of those instruments.

Property and Equipment

Property and equipment include costs of assets constructed, purchased or leased under a finance lease, related delivery and installation costs and interest incurred on significant capital projects during their construction periods. Expenditures for renewals and betterments also are capitalized, but expenditures for normal repairs and maintenance are expensed as incurred. Costs associated with yearly planned major maintenance are generally deferred and amortized over 12 months or until the same major maintenance activities must be repeated, whichever is shorter. The cost and accumulated depreciation applicable to assets retired or sold are removed from the respective accounts, and gains or losses thereon are included in the statement of operations.

We assign the useful lives of our property and equipment based upon our internal engineering estimates which are reviewed periodically. The estimated useful lives of our property and equipment range from 3 to 5 years, or the shorter of the useful life or remaining life of the lease for leasehold improvements. Depreciation is recorded using the straight-line method.

Construction in progress (Note 3) is carried at cost and consists of specifically identifiable direct and indirect development and construction costs. While under construction, costs of the property are included in construction in progress until the property is placed in service, at which time costs are transferred to the appropriate property and equipment account including, but not limited to, leasehold improvements or other such accounts.

Leases

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016 02, "Leases" ("ASC 842") establishes a right-of-use model ("ROU") that requires a lessee to recognize a ROU asset and corresponding lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the income statement as well as the reduction of the right-of-use asset. The new standard provides a number of optional practical expedients in transition. The Company has elected to apply (i) the practical expedient which allows us to not separate lease and non-lease components, for new leases and (ii) the short-term lease exemption for all leases with an original term of less than 12 months, for purposes of applying the recognition and measurements requirements in the new standard.

At the inception of an arrangement, the Company determines whether the arrangement is or contains a lease based on specific facts and circumstances, the existence of an identified asset(s), if any, and the Company's control over the use of the identified asset(s), if applicable. Operating lease liabilities and their corresponding right-of-use assets are recorded based on the present value of future lease payments over the expected lease term.

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

The interest rate implicit in lease contracts is typically not readily determinable. As such, the Company will utilize the incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment.

The Company has elected to combine lease and non-lease components as a single component. Operating leases are recognized on the balance sheet as ROU lease assets, lease liabilities current and lease liabilities non-current. Fixed rents are included in the calculation of the lease balances while variable costs paid for certain operating and pass-through costs are excluded. Lease expense is recognized over the expected term on a straight-line basis.

Impairment of Long-lived Assets

Long-lived assets consist primarily of property and equipment. The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of an asset is not recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the asset exceeds the fair value of the assets. Fair value would be assessed using a discounted cash flows or other appropriate measures of fair value. The Company did not recognize any impairment losses for the six months ended June 30, 2022.

Research and Development Costs

Research and development costs consist primarily of fees paid to consultants and facilities costs. Nonrefundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made. All research and development costs are expensed as incurred.

General and Administrative Costs

General and administrative expenses consist primarily of salaries and related benefits, including stock-based compensation, related to our executive, finance, business development, legal, human resources and support functions. Other general and administrative expenses include professional fees for auditing, tax, consulting and patent-related services, rent and utilities and insurance.

Stock-based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of employee stock awards recognized over the requisite service period of the awards (usually the vesting period) on a straight-line basis. As there is no active market for its common stock, the Company estimates the fair value of common stock on the date of grant based on then current facts and circumstances. Forfeitures are recognized as a reduction of stock-based compensation expense as they occur.

The Company also awards restricted stock to employees and directors. Restricted stock is generally subject to forfeiture if employment terminates prior to the completion of the vesting restrictions. The Company expenses the cost of the restricted stock, which is determined to be the fair market value of the shares of common stock underlying the restricted stock at the date of grant, ratably over the period during which the vesting restrictions lapse.

Equity-based compensation expense is classified in the statement of operations in the same manner in which the award recipients' payroll costs are classified or in which the award recipients' service payments are classified.

Historically, there has been no public market of the Company's common stock. The fair value of the shares of common stock underlying the Company's share-based awards was estimated on each grant date by the Company's board of directors. To determine the fair value of the Company's common stock underlying option grants, the board

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

of directors considered, among other things, input from management and recent third-party financings consummated by the Company. In connection with the preparation of the financial statements for the six months ended June 30, 2022 and the period from September 13, 2021 (inception) through December 31, 2021, the Company performed a retrospective review of the fair value of its common stock related to the current events available.

Income Taxes

Deferred income tax assets and liabilities arise from temporary differences associated with differences between the financial statements and tax basis of assets and liabilities, as measured by the enacted tax rates, which are expected to be in effect when these differences reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company has generated net losses since inception and accordingly has not recorded a provision for income taxes.

The Company follows the provisions of ASC 740-10, *Uncertainty in Income Taxes,* or ASC 740-10. The Company has not recognized a liability for any uncertain tax positions. A reconciliation of the beginning and ending amount of unrecognized tax benefits has not been provided since there is no unrecognized benefit since the date of adoption. The Company has not recognized interest expense or penalties as a result of the implementation of ASC 740-10. If there were an unrecognized tax benefit, the Company would recognize interest accrued related to unrecognized tax benefits and penalties in income tax expense.

The Company has identified the United States, Florida, South Africa and Guernsey as its major tax jurisdictions. Refer to Note 12 for further details.

Comprehensive Loss

Comprehensive loss is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company's comprehensive loss is comprised of net loss and the effect of currency translation adjustments.

Recently Issued Accounting Pronouncements

The Company has reviewed recently issued accounting pronouncements and plans to adopt those that are applicable to it. The Company does not expect the adoption of any recently issued pronouncements to have a material impact on its results of operations or financial position.

3. Property and Equipment

Property and equipment consist of construction in progress totaling $5,576,209 and $2,988,210 at June 30, 2022 and December 31, 2021, respectively.

The Company is currently building out the plant and office space in South Africa. All costs incurred are considered construction in progress because the work is not complete as of June 30, 2022 and December 31, 2021. There was no depreciation expense for the six months ended June 30, 2022.

4. Accrued Expenses

Accrued expenses consisted of accrued professional and financing fees and payroll at June 30, 2022. Accrued expenses consisted of accrued payroll at December 31, 2021.

5. Notes Payable

During 2021, the Company executed promissory notes payable with two individuals with an aggregate principal balance of approximately $46,900 (35,000 GBP). The notes were due after a period of two months followed by mutually agreed upon monthly extensions and do not bear interest. Subsequent to the issuance of the notes payable, one of the individuals became an officer of the Company.

In March 2022, one of the promissory notes totaling $13,046 (10,000 GBP) was repaid in full. As of June 30, 2022, the total promissory notes payable balance was $33,854 and have been automatically extended on a monthly basis. As of December 31, 2021, the total promissory notes payable balance was $46,900.

6. Commitments and Contingencies

Klydon Proprietary Limited

In November 2021, the Company entered into an agreement with Klydon Proprietary Limited (“Klydon”) to design and build a plant to enrich Molybdenum in South Africa. The initial phase of the project includes the building of a plant that can support the production of at least 5kgs of Mo-100, and is expected to be completed in 2022. The contracted cost for this phase is $6,800,000. The second phase of the project includes the production to be increased to 20kgs of Mo-100 with an additional cost of $6,000,000. The Company can modify the contract scope and overall costs and the contract can be cancelled by either party. As of June 30, 2022 and December 31, 2021, approximately $4,990,000 and $1,800,000, respectively, has been paid under this contract and recorded as construction in progress within property and equipment.

Two individuals who are officers and board members of Klydon received warrants to purchase common stock of the Company. See Notes 8 and 9.

Contingencies

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of its business activities. The Company accrues liabilities for such matters when future expenditures are probable and such expenditures can be reasonably estimated.

7. Lease

The Company accounts for leases in accordance with ASC 842 (Note 2). The Company is party to one operating lease in Pretoria, South Africa for office and laboratory space. The lease commenced in October 2021 with the initial term set to expire in December 2030. The Company has applied the guidance in ASC 842 and has determined that it should be classified as an operating lease. The Company’s incremental borrowing rate is approximately 7.5% based on the remaining lease term of the applicable lease. Consequently, a ROU lease asset of approximately $952,521 with a corresponding lease liability of approximately $952,521 based on the present value of the minimum rental payments of such lease was recorded at the inception of the lease. In the consolidated balance sheet at June 30, 2022, the Company has a ROU asset balance of $893,892 and a current and non-current lease liability of $42,412 and $802,798, respectively, relating to the ROU lease asset. The balance of both the ROU lease asset and the lease liabilities primarily consists of future payments under the Company’s lease in South Africa.

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

7. Lease (cont.)

Quantitative information regarding the Company's lease for the six months ended June 30, 2022 is as follows:

Lease Cost		Six Months Ended June 30, 2022
Operating lease cost	$	37,476
Other Information		
Operating cash flows paid for amounts included in the measurement of lease liabilities	$	50,757
Operating lease liabilities arising from obtaining right-of-use assets	$	—
Remaining lease term (years)		8.50
Discount rate		7.5%

Future lease payments under noncancelable leases are as follows at June 30, 2022:

Future Lease Payments		Operating Leases
2022	$	52,182
2023		108,278
2024		116,399
2025		125,129
2026		134,514
Thereafter		646,794
Total lease payments	$	1,183,296
Less: imputed interest		(338,086)
Total lease liabilities	$	845,210
Less current portion		(42,412)
Lease liability – noncurrent	$	802,798

Rent expense for the six months ended June 30, 2022 was $45,618.

8. License Agreements

In September 2021, the Company licensed certain intellectual property from Klydon for the development, production distribution, marketing and sale of Mo-100. The license term is 999 years, unless terminated earlier by either party under certain provisions. Any development efforts improving the intellectual property performed by either Klydon or the Company will be the property of Klydon. There are no upfront, milestone payments, nor royalties on product sales over the term of the license. Two individuals who are officers and board members of Klydon received warrants to purchase common stock of the Company. See Note 9.

In January 2022, the Company licensed certain intellectual property from Klydon for the development, production distribution, marketing and sale of uranium isotope U-235 ("U-235"). The license term is 999 years, unless terminated earlier by either party under certain provisions. Any development efforts improving the intellectual property performed by either Klydon or the Company will be the property of Klydon. The Company paid an upfront fee of $100,000, which was expensed to research and development expense. The Company is required to a nominal royalty per Kg of product sold plus 10% royalties on product net profits over the term of the contract. One of the officers, who is also a board member of Klydon, became a board member and consultant of ASP Isotopes, Inc. and an employee of ASP Guernsey in January 2022.

In July 2022, ASP Isotopes UK Ltd (a subsidiary of the Company) entered into a license agreement with Klydon, as licensor, pursuant to which ASP Isotopes UK Ltd acquired from Klydon an exclusive license to use, develop, modify, improve, subcontract and sublicense certain intellectual property rights relating to the ASP

8. License Agreements (cont.)

technology for the production, distribution, marketing and sale of all isotopes produced using the ASP technology (the "Klydon license agreement"). The Klydon license agreement superseded and replaced the Mo-100 license and U-235 license described in Note 8 above. The Klydon license agreement is royalty-free, has a term of 999 years and is worldwide for the development of the ASP technology and the distribution, marketing and sale of isotopes. Future production of isotopes is limited to member countries of the Nuclear Suppliers Group. In connection with the Klydon license agreement the Company agreed to make an upfront payment of $100,000 (to be included within the payments we make under the Turnkey Contract) and deferred payments of $300,000 over 24 months. Klydon has the right to terminate the exclusivity of the Klydon license agreement in the event that the licensee ceases to carry on activities related to isotope enrichment for a period longer than 24 consecutive months.

In July 2022, ASP South Africa acquired assets comprising a dormant Silicon-28 aerodynamic separation processing plant from Klydon for ZAR 6,000,000 (which at the then current exchange rate was approximately USD 354,000), which will be payable to Klydon on the later of 180 days of the acquisition and the date on which the assets generate any revenues of any nature.

9. Stockholders' Equity

Common stock

The Company had 50,000,000 shares of common stock authorized, of which 29,407,127 shares were issued and outstanding at June 30, 2022. Common stockholders are entitled to one vote for each share of outstanding common stock held at all meetings of stockholders and written actions in lieu of meetings. Common stockholders are entitled to receive dividends for each share of outstanding common stock, if and when declared by the Board. No dividends have been declared or paid by the Company through June 30, 2022.

From September 2021 through early November 2021, the Company issued 15,100,000 shares of common stock at $0.25 per share.

From November 2021 through December 2021, the Company issued 1,452,500 shares of common stock at $2.00 per share. The Company incurred $226,000 in cash issuance costs and is required to issue 58,100 shares of common stock to the placement agent with a fair value of $116,200, which is recorded as a share liability on the balance sheet.

For the first six months of 2022, the Company issued 1,559,780 shares of common stock at $2.00 per share for gross proceeds of $3,119,560. The Company incurred $255,965 in cash issuance costs and is required to issue 62,391 shares of common stock to the placement agent with a fair value of $124,782, which is recorded as a share liability on the balance sheet.

Founder Stock

In September 2021, the Company awarded 2,000,000 shares of common stock to its founders for no cash consideration. The Company determined that the fair value of these shares was $0.25 per share and recorded stock compensation expense of $500,000 in 2021.

Common Stock Warrants

In September 2021, the Company issued warrants to purchase 7,230,822 shares of common stock at an exercise price of $0.01 per share for no cash consideration to two parties for their field of knowledge related to the technical operations of the Company. These warrants were to expire in September 2023. The Company determined that the fair value of common stock was $0.25 per share. The fair value of these warrants was determined to be $1,735,841 and was recorded as general and administrative expense.

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

9. Stockholders' Equity (cont.)

The fair values of the warrants were estimated based on the Black-Scholes model, using the following assumptions:

Expected volatility	76.5%
Weighted-average risk-free rate	0.21%
Expected term in years	2.00
Expected dividend yield	0%

In January 2022, warrants to purchase 7,230,822 shares of common stock were net share settled into 7,194,847 shares of common stock per the terms of the underlying warrant agreements. No warrants were exercised in 2021.

10. Stock Compensation Plan

Equity Incentive Plan

In October 2021, the Company adopted the 2021 Stock Incentive Plan ("2021 Plan") that provides for the issuance of common stock to employees, nonemployee directors, and consultants. Recipients of incentive stock options are eligible to purchase shares of common stock at an exercise price equal to no less than the estimated fair market value of such stock on the date of grant. The Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock, restricted stock units, stock awards and stock appreciation rights. The maximum contractual term of options granted under the Plan is ten years. The maximum number of shares initially available for issuance under the 2021 Plan was 6,000,000. As of June 30, 2022, 1,634,000 shares remain available for future grant under the Plan.

Stock Options

The following table sets forth the activity for the Company's stock options during the periods presented:

	Number of Options	Weighted-Average Exercise Price per Share	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2021	400,000	$ 0.25	9.8	$ 700,000
Granted	2,116,000	$ 2.00		
Forfeited	(250,000)	$ 0.25		
Outstanding at June 30, 2022	2,266,000	$ 1.88	9.8	$ 262,500
Exercisable at June 30, 2022	45,833	$ 0.73	9.4	$ 58,333
Vested or expected to vest at June 30, 2022	2,266,000	$ 1.88	9.8	$ 262,500

The fair values of the options granted were estimated based on the Black-Scholes model, using the following assumptions:

	Six Months Ended June 30, 2022
Expected volatility	63.0% – 64.5%
Risk-free interest rate	1.68% – 3.08%
Expected term in years	5.5 – 5.8
Expected dividend yield	—%

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

10. Stock Compensation Plan (cont.)

For the six months ended June 30, 2022, the Company granted 2,116,000 options with an exercise price of $2.00 per share, of which 288,000 options were issued to nonemployee directors that vest in April 2023 and the remaining options vest monthly over three years. The weighted average grant date fair value of options granted during 2022 was $1.17.

During 2021, the Company granted 400,000 options with an exercise price of $0.25 per share that vest monthly over three years. The weighted-average grant date fair value of options granted during 2021 was $0.15.

The Company recorded stock compensation from options of $206,548 for the six months ended June 30, 2022. As of June 30, 2022, there was $2,303,866 of unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the Plan, which is expected to be recognized over a weighted average period of approximately 2.4 years.

Stock Awards

In October 2021, the Company issued 1,500,000 shares of restricted common stock to its Chief Executive Officer. The number of shares that vest is dependent on achieving certain performance conditions and dependent market conditions upon the third anniversary from the date of grant. The Company determined that the fair value of this award was $0.25 per share for a total value of $375,000. Upon reaching the performance condition, the Company will recognize stock compensation expense over the remaining measurement period. No stock compensation was recorded for this award for the six months ended June 30, 2022.

In October 2021, the Company also issued 600,000 shares of restricted common stock to a consultant who is also a member the board of directors, that vest annually over three years. The Company determined that the fair value of this award was $0.25 per share for a total value of $150,000. Stock compensation totaling $25,000 was recorded for this award for the six months ended June 30, 2022 and $116,667 of unrecognized compensation cost related to non-vested portion is expected to be recognized over the next 2.3 years. The consulting agreement also includes potential future awards of common stock for continued service. The number of shares to be awarded will be determined on a quarterly basis of $40,000 divided by the then fair value of a share of common stock for up to eight calendar quarters following the first anniversary.

The following table summarizes vesting of restricted common stock:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Unvested at December 31, 2021	2,100,000	$ 0.25
Vested	—	—
Unvested at June 30 2022	2,100,000	$ 0.25

Stock-based Compensation Expense

Stock-based compensation expense for all stock awards recognized in the accompanying consolidated statements of operations for the six months ended June 30, 2022 is as follows:

	Six Months Ended June 30, 2022
General and administrative	$ 207,860
Research and development	23,688
Total	$ 231,548

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

11. Net Loss Per Share

The Company has reported losses since inception and has computed basic net loss per share attributable to common stockholders by dividing net loss attributable to common stockholders by the weighted-average number of shares of Common Stock outstanding for the period, without consideration for potentially dilutive securities. The Company computes diluted net loss per share of Common Stock after giving consideration to all potentially dilutive shares of common stock, including options to purchase common stock and warrants to purchase common stock, outstanding during the period determined using the treasury-stock and if-converted methods, except where the effect of including such securities would be antidilutive. Because the Company has reported net losses since inception, these potential shares of Common Stock and Preferred Stock have been anti-dilutive and basic and diluted loss per share were the same for all periods presented.

The following table sets forth the computation of basic and diluted net loss per share for the six months ended June 30, 2022:

	Six Months Ended June 30, 2022
Numerator:	
Net loss	$ (1,684,758)
Denominator:	
Weighted average common stock outstanding, basic and diluted	27,898,098
Net loss per share, basic and diluted	$ (0.06)

The following table sets forth the potentially dilutive securities that have been excluded from the calculation of diluted net loss per share because to include them would be anti-dilutive (in common stock equivalent shares) at June 30, 2022:

	Six Months Ended June 30, 2022
Options to purchase common stock	2,266,000
Total shares of common stock equivalents	2,266,000

12. Income Taxes

The Company has no income tax expense due to operating losses incurred for the six months ended June 30, 2022. The Company has provided a full valuation allowance on the net deferred tax asset because management has determined that it is more-likely-than-not that the Company will not earn income sufficient to realize the deferred tax assets during a future period.

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. Income tax positions must meet a more likely than not recognition threshold to be recognized. The Company’s practice is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest and penalties on the Company’s balance sheets and has not recognized interest and/or penalties in the statements of operations and comprehensive loss for the six months ended June 30, 2022. Uncertain tax positions are evaluated based upon the facts and circumstances that exist at each reporting period. Subsequent changes in judgment based upon new information may lead to changes in recognition, derecognition, and measurement. Adjustments may result, for example, upon resolution of an issue with the taxing authorities or expiration of a statute of limitations barring an assessment for an issue. As of June 30, 2022, there were no uncertain tax positions.

ASP Isotopes Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
For The Six Months Ended June 30, 2022

12. Income Taxes (cont.)

As of June 30, 2022, the Company did not recognize any interest and penalties associated with unrecognized tax benefits. Due to net operating losses incurred, tax years from inception remain open to examination by the Federal and State taxing jurisdictions to which we are subject. The Company is not currently under Internal Revenue Services (IRS), state or local tax examination.

Ownership changes, as defined in the IRC, may limit the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income pursuant to IRC Section 382 or similar provisions. Subsequent ownership changes could further affect the limitation in future years. The Company has not completed a study to assess whether a change of control has occurred or whether there have been multiple changes of control since the Company’s formation due to the significant complexity and cost associated with such study and because there could be additional changes in control in the future. As a result, the Company is not able to estimate the effect of the change in control, if any, on the Company’s ability to utilize net operating loss and research and development credit carryforwards in the future.

13. Subsequent Events

The Company has evaluated subsequent events through September 30, 2022, the date on which the accompanying financial statements were issued and none were noted except as follows.

In July 2022, the Company issued 600,000 shares of restricted common stock (subject to quarterly vesting in equal installments over one year) to a consultant who is also a member the board of directors in connection with an amendment to the consulting agreement.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
ASP Isotopes Inc. and Subsidiaries

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of ASP Isotopes Inc. and Subsidiaries (the "Company") as of December 31, 2021, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity and cash flows for the period from September 13, 2021 (inception) through December 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2021, and the results of its operations and its cash flows for the period from September 13, 2021 (inception) through December 31, 2021 in conformity with U.S. generally accepted accounting principles.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred recurring operating losses and negative cash flows from operating activities, which raises substantial doubt about its ability to continue as a going concern. Management's plans in regards to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ EisnerAmper LLP

We have served as the Company's auditor since 2022.

EISNERAMPER LLP
Iselin, New Jersey
April 21, 2022

ASP Isotopes Inc.
Consolidated Balance Sheet

	December 31, 2021
Assets	
Current assets:	
Cash	$ 2,953,721
Prepaid expenses and other current assets	267,562
Total current assets	3,221,283
Property and equipment, net	2,988,210
Operating lease right of use asset	933,145
Total assets	**$ 7,142,638**
Liabilities and stockholders' equity	
Current liabilities:	
Accounts payable	$ 59,679
Accrued expenses	42,500
Notes payable	46,900
Operating lease liability – current	38,072
Share liability	116,200
Total current liabilities	303,351
Operating lease liability – noncurrent	841,623
Total liabilities	1,144,974
Commitments and contingencies (Note 6)	
Stockholders' equity	
Common stock, $0.01 par value; 50,000,000 shares authorized, 20,652,500 shares issued and outstanding at December 31, 2021	206,525
Additional paid-in capital	8,380,343
Accumulated deficit	(2,607,927)
Accumulated other comprehensive income	18,723
Total stockholders' equity	**5,997,664**
Total liabilities and stockholders' equity	**$ 7,142,638**

The accompanying notes are an integral part of these consolidated financial statements.

ASP Isotopes Inc.
Consolidated Statement of Operations and Comprehensive Loss

		For The Period From September 13, 2021 (Inception) Through December 31, 2021
Operating expenses:		
Research and development	$	41,610
General and administrative		2,566,432
Total operating expenses		2,608,042
Loss from operations		(2,608,042)
Other income:		
Interest income		115
Total other income		115
Loss from operations before taxes		(2,607,927)
Income tax expense		—
Net loss	**$**	**(2,607,927)**
Net loss per share, basic and diluted	**$**	**(0.16)**
Weighted average shares of common stock outstanding, basic and diluted		**16,246,432**
Other comprehensive loss:		
Net loss		(2,607,927)
Foreign currency translation		18,723
Total comprehensive loss	**$**	**(2,589,204)**

The accompanying notes are an integral part of these consolidated financial statements.

ASP Isotopes Inc.
Consolidated Statement of Changes in Stockholders' Equity

	Common Stock					
	Shares	Amount	Additional Paid-in Capital	Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
Balance at September 13, 2021 (Inception)	—	$ —	$ —	$ —	$ —	$ —
Issuance of common stock to founders	2,000,000	20,000	480,000	—	—	**500,000**
Issuance of restricted common stock	2,100,000	21,000	(21,000)	—	—	**—**
Issuance of common stock, net of issuance costs totaling 342,200	16,552,500	165,525	6,172,275	—	—	**6,337,800**
Issuance of warrants to purchase common stock	—	—	1,735,841	—	—	**1,735,841**
Stock-based compensation	—	—	13,227	—	—	**13,227**
Foreign currency translation	—	—	—	18,723	—	**18,723**
Net loss	—	—	—	—	(2,607,927)	**(2,607,927)**
Balance at December 31, 2021	**20,652,500**	**$ 206,525**	**$ 8,380,343**	**$ 18,723**	**$ (2,607,927)**	**$ 5,997,664**

The accompanying notes are an integral part of these consolidated financial statements.

ASP Isotopes Inc.
Consolidated Statement of Cash Flows

		For The Period From September 13, 2021 (Inception) Through December 31, 2021
Cash flows from Operating activities		
Net loss	$	(2,607,927)
Adjustments to reconcile net loss to cash used in operating activities:		
Stock-based compensation		13,227
Issuance of common stock to founders		500,000
Issuance of warrants to purchase common stock		1,735,841
Amortization of right of use lease asset		19,376
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets		(267,562)
Accounts payable		59,679
Accrued expenses		42,500
Lease liability		(72,826)
Net cash used in operating activities		**(577,692)**
Cash flows from investing activities		
Purchases of property and equipment		(2,988,210)
Net cash used in investing activities		**(2,988,210)**
Cash flows from financing Activities		
Proceeds from issuance of common stock		6,680,000
Common stock issuance costs		(226,000)
Proceeds from issuance of notes payable		46,900
Net cash provided by financing activities		**6,500,900**
Net change in cash		2,934,998
Effect of exchange rate changes on cash		18,723
Cash – beginning of period		—
Cash – end of period	**$**	**2,953,721**
Supplemental disclosures of non-cash investing and financing activities:		
Right-of-use assets obtained in exchange for lease liability	$	952,521
Share liability for non-cash issuance costs	$	116,200

The accompanying notes are an integral part of these consolidated financial statements.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

1. Organization

Description of Business

ASP Isotopes Inc. was incorporated in the state of Delaware on September 13, 2021 and has its principal operations in Boca Raton, Florida. ASP Isotopes Inc.'s subsidiary, ASP Isotopes Guernsey Limited ("ASP Guernsey"), has its principal operations in Guernsey. ASP Guernsey's subsidiary, ASP Isotopes South Africa (Proprietary) Limited ("ASP South Africa"), has its principal operations in South Africa. ASP Isotopes Inc. and its subsidiaries are collectively referred to as "the Company" throughout these consolidated statements.

The Company is an isotope enrichment company. The Company utilizes technology developed in South Africa over the past 20 years to enrich isotopes of elements or molecules with low atomic masses. Many of these elements are unsuitable for enrichment using traditional methods such as centrifuges. The Company's first commercial product will be Molybdenum 100 ("Mo-100"), which has the potential to replace Molybdenum99, a commonly used product in the diagnostic imaging market.

Liquidity and Going Concern Uncertainty

The accompanying consolidated financial statements have been prepared on a basis which assumes the Company is a going concern and do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from any uncertainty related to the Company's ability to continue as a going concern. Such adjustments could be material. The Company has experienced net losses and negative cash flows from operating activities since its inception. The Company has a net loss of $2,607,927 for the period from September 13, 2021 (inception) through December 31, 2021. The Company anticipates it will need to continue to raise capital through additional equity and/or debt financings and/or collaborative development agreements to fund its operations.

The Company currently expects that its cash of $2,953,721 as of December 31, 2021, together with the gross proceeds from the issuance of 1,517,605 shares of common stock for $3,035,210 from January through March 2022, will not be sufficient to fund its operating expenses and capital requirements for more than 12 months from the date the financial statements are issued. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Additional funding will be necessary to complete construction of the first enrichment facility and begin operations and although the Company has plans to seek additional funding, these plans are not currently probable.

There can be no assurance that the Company will achieve or sustain positive cash flows from operations or profitability. The Company is in the process of seeking additional equity financing. However, such funding may not be available on a timely basis on terms acceptable to the Company, or at all. If the Company is unable to raise additional capital when required or on acceptable terms, the Company may be required to further scale back or discontinue the advancement of product candidates, further reduce headcount, reorganize, merge with another entity, or cease operations.

Coronavirus Pandemic

In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. In order to mitigate the spread of COVID-19, governments have imposed unprecedented restrictions on business operations, travel and gatherings, resulting in a global economic downturn and other adverse economic and societal impacts. The COVID-19 pandemic and its impacts continue to evolve. We cannot predict the scope and severity of disruptions as a result of COVID-19 or their impacts on us, but business disruptions for us or any of the third parties with whom we engage, including the collaborators, contract organizations, third-party manufacturers, suppliers, regulators and other third parties with whom we conduct business could materially and negatively impact our ability to conduct our business in the manner and on the timelines presently planned. The extent to which the COVID-19 pandemic may impact our business and financial performance will depend on future developments, which are highly uncertain and

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

1. Organization (cont.)

cannot be predicted with confidence, including the scope and duration of the pandemic, the extent and effectiveness of government restrictions and other actions, including relief measures, implemented to address the impact of the pandemic, and resulting economic impacts.

The actual and perceived impact of the COVID-19 pandemic is changing daily, and its ultimate effect on our business cannot be predicted. As a result, there can be no assurance that we will not experience negative impacts associated with COVID-19, which could be significant. The COVID-19 pandemic may negatively impact our business, financial condition and results of operations causing interruptions or delays in the Company's programs and services.

2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Use of Estimates

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of the Company's consolidated financial statements requires management to make estimates and assumptions that impact the reported amounts of assets, liabilities and expenses and disclosure in the Company's consolidated financial statements and accompanying notes. The most significant estimates in the Company's consolidated financial statements relate to assumptions used to calculate our lease liability, the valuation of equity instruments and estimating our accrued research and development expenses. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may materially differ from these estimates and assumptions.

Principles of consolidation

The Company's consolidated financial statements for 2021 include the accounts of ASP Isotopes Inc. and its subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Currency and currency translation

The consolidated financial statements are presented in U.S. dollars, the Company's reporting currency. The functional currency of ASP Isotopes Inc. and ASP Guernsey is the U.S. dollar. The functional currency of the Company's subsidiary ASP South Africa is the South African Rand. Adjustments that arise from exchange rate changes on transactions of each group entity denominated in a currency other than the functional currency are included in other income and expense in the consolidated statements of operations. Assets and liabilities of ASP South Africa are recorded in their South African Rand functional currency and translated into the U.S. dollar reporting currency of the Company at the exchange rate on the balance sheet date. Revenue, when recorded, and expenses of ASP South Africa are recorded in their South African Rand functional currency and translated into the U.S. dollar reporting currency of the Company at the average exchange rate prevailing during the reporting period. Resulting translation adjustments are recorded to other comprehensive income (loss).

Concentration of Credit Risk and other Risks

The Company maintains its cash in bank deposit and checking accounts that at times exceed insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk.

Cash

The Company considers all highly liquid investments with original maturities at the date of purchase of three months or less to be cash equivalents. Cash and cash equivalents are stated at fair value and may include money market funds, U.S. Treasury and U.S. government-sponsored agency securities, corporate debt, commercial paper and certificates of deposit. The Company had no cash equivalents as of December 31, 2021.

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

Segment Information

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The financial information is regularly reviewed by the chief operating decision maker ("CODM"), in deciding how to allocate resources. The Company's CODM is its chief executive officer.

Fair Value of Financial Instruments

Accounting guidance defines fair value, establishes a consistent framework for measuring fair value, and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1:	Observable inputs such as quoted prices in active markets;
Level 2:	Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
Level 3:	Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The carrying amounts of accounts payable, accrued expenses and notes payable are considered to be representative of their respective fair values because of the short-term nature of those instruments.

Property and Equipment

Property and equipment include costs of assets constructed, purchased or leased under a finance lease, related delivery and installation costs and interest incurred on significant capital projects during their construction periods. Expenditures for renewals and betterments also are capitalized, but expenditures for normal repairs and maintenance are expensed as incurred. Costs associated with yearly planned major maintenance are generally deferred and amortized over 12 months or until the same major maintenance activities must be repeated, whichever is shorter. The cost and accumulated depreciation applicable to assets retired or sold are removed from the respective accounts, and gains or losses thereon are included in income.

We assign the useful lives of our property and equipment based upon our internal engineering estimates which are reviewed periodically. The estimated useful lives of our property and equipment range from 3 to 5 years, or the shorter of the useful life or remaining life of the lease for leasehold improvements. Depreciation is recorded using the straight-line method.

Construction in progress (Note 3) is carried at cost and consists of specifically identifiable direct and indirect development and construction costs. While under construction, costs of the property are included in construction in progress until the property is placed in service, at which time costs are transferred to the appropriate property and equipment account including, but not limited to, leasehold improvements or other such accounts.

Leases

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016 02, "Leases" ("ASC 842") establishes a right-of-use model ("ROU") that requires a lessee to recognize a ROU asset and corresponding lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the income statement as well as the reduction of the right of use asset.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

The new standard provides a number of optional practical expedients in transition. The Company has elected to apply (i) the practical expedient which allows us to not separate lease and non-lease components, for new leases and (ii) the short-term lease exemption for all leases with an original term of less than 12 months, for purposes of applying the recognition and measurements requirements in the new standard.

At the inception of an arrangement, the Company determines whether the arrangement is or contains a lease based on specific facts and circumstances, the existence of an identified asset(s), if any, and the Company's control over the use of the identified asset(s), if applicable. Operating lease liabilities and their corresponding right-of-use assets are recorded based on the present value of future lease payments over the expected lease term. The interest rate implicit in lease contracts is typically not readily determinable. As such, the Company will utilize the incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment.

The Company has elected to combine lease and non-lease components as a single component. Operating leases are recognized on the balance sheet as ROU lease assets, lease liabilities current and lease liabilities non-current. Fixed rents are included in the calculation of the lease balances while variable costs paid for certain operating and pass-through costs are excluded. Lease expense is recognized over the expected term on a straight-line basis.

Impairment of Long-lived Assets

Long-lived assets consist primarily of property and equipment. The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of an asset is not recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the asset exceeds the fair value of the assets. Fair value would be assessed using a discounted cash flows or other appropriate measures of fair value. The Company did not recognize any impairment losses for the period from September 13, 2021 (inception) through December 31, 2021.

Research and Development Costs

Research and development costs consist primarily of fees paid to consultants and facilities costs. Nonrefundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made. All research and development costs are expensed as incurred.

General and Administrative Costs

General and administrative expenses consist primarily of salaries and related benefits, including stock-based compensation, related to our executive, finance, business development, legal, human resources and support functions. Other general and administrative expenses include professional fees for auditing, tax, consulting and patent-related services, rent and utilities and insurance.

Stock-based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of employee stock awards recognized over the requisite service period of the awards (usually the vesting period) on a straight-line basis. As there is no active market for its common stock, the Company estimates the fair value of common stock on the date of grant based on then current facts and circumstances. Forfeitures are recognized as a reduction of stock-based compensation expense as they occur.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

2. Basis of Presentation and Summary of Significant Accounting Policies (cont.)

The Company also awards restricted stock to employees and directors. Restricted stock is generally subject to forfeiture if employment terminates prior to the completion of the vesting restrictions. The Company expenses the cost of the restricted stock, which is determined to be the fair market value of the shares of common stock underlying the restricted stock at the date of grant, ratably over the period during which the vesting restrictions lapse.

Equity-based compensation expense is classified in the statement of operations in the same manner in which the award recipients' payroll costs are classified or in which the award recipients' service payments are classified.

Historically, there has been no public market of the Company's common stock. The fair value of the shares of common stock underlying the Company's share-based awards was estimated on each grant date by the Company's board of directors. To determine the fair value of the Company's common stock underlying option grants, the board of directors considered, among other things, input from management and recent third-party financings consummated by the Company. In connection with the preparation of the financial statements for the period from September 13, 2021 (inception) through December 31, 2021, the Company performed a retrospective review of the fair value of its common stock related to the current events available. Based on this review, the Company recorded stock compensation as reflected in the financial statements.

Income Taxes

Deferred income tax assets and liabilities arise from temporary differences associated with differences between the financial statements and tax basis of assets and liabilities, as measured by the enacted tax rates, which are expected to be in effect when these differences reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company has generated net losses since inception and accordingly has not recorded a provision for income taxes.

The Company follows the provisions of ASC 740-10, *Uncertainty in Income Taxes,* or ASC 740-10. The Company has not recognized a liability for any uncertain tax positions. A reconciliation of the beginning and ending amount of unrecognized tax benefits has not been provided since there is no unrecognized benefit since the date of adoption. The Company has not recognized interest expense or penalties as a result of the implementation of ASC 740-10. If there were an unrecognized tax benefit, the Company would recognize interest accrued related to unrecognized tax benefits and penalties in income tax expense.

The Company has identified the United States, South Africa and Guernsey as its major tax jurisdictions. Refer to Note 12 for further details.

Comprehensive Loss

Comprehensive loss is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company's comprehensive loss is comprised of currency translation.

Recently Issued Accounting Pronouncements

The Company has reviewed recently issued accounting pronouncements and plans to adopt those that are applicable to it. The Company does not expect the adoption of any recently issued pronouncements to have an impact on its results of operations or financial position.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

3. Property and Equipment

Property and equipment consist of construction in progress totaling $2,988,210 at December 31, 2021.

The Company is currently building out the plant and office space in South Africa. All costs incurred are considered construction in progress because the work is not complete as of December 31, 2021. There was no depreciation expense for the period from September 13, 2021 (inception) through December 31, 2021.

4. Accrued Expenses

Accrued expenses consisted of accrued payroll at December 31, 2021.

5. Notes Payable

During 2021, the Company executed promissory notes payable with two individuals with an aggregate principal balance of approximately $46,900 (35,000 GBP). The notes were due after a period of two months followed by mutually agreed upon monthly extensions and do not bear interest. Subsequent to the issuance of the notes payable, one of the individuals became an officer of the Company. As of December 31, 2021, the total promissory notes payable balance was $46,900 and have been automatically extended.

6. Commitments and Contingencies

Klydon Proprietary Limited

In November 2021, the Company entered into an agreement with Klydon Proprietary Limited ("Klydon") to design and build a plant to enrich Molybdenum in South Africa. The initial phase of the project includes the building of a plant that can support the production of at least 5kgs of Mo-100, and is expected to be completed in 2022. The contracted cost for this phase is $6,800,000. The second phase of the project includes the production to be increased to 20kgs of Mo-100 with an additional cost of $6,000,000. The Company can modify the contract scope and overall costs and the contract can be cancelled by either party. As of December 31, 2021, approximately $1,800,000 has been paid under this contract and recorded as construction in progress.

In September 2021, the Company issued warrants to purchase common stock of the Company to two individuals who are officers and board members of Klydon. See Note 9.

Contingencies

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of its business activities. The Company accrues liabilities for such matters when future expenditures are probable and such expenditures can be reasonably estimated.

7. Lease

The Company accounts for leases in accordance with ASC 842 (Note 2). The Company is party to one operating lease in Pretoria, South Africa for office and laboratory space. The lease commenced in October 2021 with the initial term set to expire in December 2030. The Company has applied the guidance in ASC 842 and has determined that it should be classified as an operating lease. The Company's incremental borrowing rate is approximately 7.5% based on the remaining lease term of the applicable lease. Consequently, a ROU lease asset of approximately $952,521 with a corresponding lease liability of approximately $952,521 based on the present value of the minimum rental payments of such lease was recorded at the inception of the lease. In the consolidated balance sheet at December 31, 2021, the Company has a ROU asset balance of $933,145 and a current and non-current lease liability of $38,072 and $841,623, respectively, relating to the ROU lease asset. The balance of both the ROU lease asset and the lease liabilities primarily consists of future payments under the Company's lease in South Africa.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

7. Lease (cont.)

Quantitative information regarding the Company's lease for the period September 13, 2021 (inception) through December 31, 2021 is as follows:

Lease Cost	For the period from September 13, 2021 (inception) through December 31, 2021
Operating lease cost	$ 19,376
Other Information	
Operating cash flows paid for amounts included in the measurement of lease liabilities	$ 26,582
Operating lease liabilities arising from obtaining right-of-use assets	$ 952,521
Remaining lease term (years)	9.00
Discount rate	7.5%

Future lease payments under noncancelable leases are as follows at December 31, 2021:

	Operating Leases
Future Lease Payments	
2022	$ 102,828
2023	110,540
2024	118,831
2025	127,743
2026	137,324
Thereafter	660,305
Total lease payments	$ 1,257,571
Less: imputed interest	(377,876)
Total lease liabilities	$ 879,695
Less current portion	(38,072)
Lease liability – noncurrent	841,623

Rent expense for the period September 13, 2021 (inception) through December 31, 2021 was $36,366.

8. License Agreements

In September 2021, the Company licensed certain intellectual property from Klydon for the development, production distribution, marketing and sale of Mo-100. The license term is 999 years, unless terminated earlier by either party under certain provisions. Any development efforts improving the intellectual property performed by either Klydon or the Company will be the property of Klydon, however any additions to know how or improvements to the technology will be deemed part of the intellectual property rights licensed to the Company under the Mo-100 license. There are no upfront, milestone payments, nor royalties on product sales over the term of the license.

In September 2021, the Company issued warrants to purchase common stock of the Company to two individuals who are officers and board members of Klydon. See Note 9.

8. License Agreements (cont.)

In January 2022, the Company licensed certain intellectual property from Klydon for the development, production distribution, marketing and sale of uranium isotope U-235 (“U-235”). The license term is 999 years, unless terminated earlier by either party under certain provisions. Any development efforts improving the intellectual property performed by either Klydon or the Company will be the property of Klydon, however any additions to know how or improvements to the technology will be deemed part of the intellectual property rights licensed to the Company under the U-235 license. The Company paid an upfront fee of $100,000, which will be expensed to research and development expense. The Company is required to a nominal royalty per Kg of product sold plus 10% royalties on product net profits over the term of the contract.

One individual who is an officer and a director of Klydon became a director and consultant of the Company and an employee of ASP Guernsey in January 2022. Another individual who is an officer and a director of Klydon became an advisor to the Company in January 2022.

9. Stockholders’ Equity

Common stock

The Company had 50,000,000 shares of common stock authorized, of which 20,652,500shares were issued and outstanding at December 31, 2021. Common stockholders are entitled to one vote for each share of outstanding common stock held at all meetings of stockholders and written actions in lieu of meetings. Common stockholders are entitled to receive dividends for each share of outstanding common stock, if and when declared by the Board. No dividends have been declared or paid by the Company through December 31, 2021.

From September 2021 through early November 2021, the Company issued 15,100,000shares of common stock at $0.25 per share.

From November 2021 through December 2021, the Company issued 1,452,500shares of common stock at $2.00 per share. The Company incurred $226,000 in cash issuance costs and is required to issue 58,100 shares of common stock to the placement agent with a fair value of $116,200, which is recorded as a share liability on the balance sheet.

Subsequent to December 31, 2021, the Company has issued 1,517,605shares of common stock for gross proceeds of $3,035,210.

Founder Stock

In September 2021, the Company awarded 2,000,000 shares of common stock to its founders for no cash consideration. The Company determined that the fair value of these shares was $0.25 per share and recorded stock compensation expense of $500,000 in 2021.

Common Stock Warrants

In September 2021, the Company issued warrants to purchase 7,230,822shares of common stock at an exercise price of $0.01 per share for no cash consideration to two parties for their field of knowledge related to the technical operations of the Company. These warrants expire in September 2023. The Company determined that the fair value of the common shares was $0.25 per share. The fair value of these warrants was determined to be $1,735,841 and was recorded as general and administrative expense. No warrants were exercised in 2021.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

9. Stockholders' Equity (cont.)

The fair values of the warrants were estimated based on the Black-Scholes model, using the following assumptions:

Expected volatility	76.5%
Weighted-average risk-free rate	0.21%
Expected term in years	2.00
Expected dividend yield	—%

In January 2022, warrants to purchase 7,230,822 shares of common stock were net share settled into 7,194,847 shares of common stock per the terms of the underlying warrant agreements.

10. Stock Compensation Plan

Equity Incentive Plan

In October 2021, the Company adopted the 2021 Stock Incentive Plan ("2021 Plan") that provides for the issuance of common stock to employees, nonemployee directors, and consultants. Recipients of incentive stock options are eligible to purchase shares of common stock at an exercise price equal to no less than the estimated fair market value of such stock on the date of grant. The Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock, restricted stock units, stock awards and stock appreciation rights. The maximum contractual term of options granted under the Plan is ten years. As of December 31, 2021, the maximum number of shares initially available for issuance under the 2021 Plan was 6,000,000. As of December 31, 2021, 3,500,000 shares remain available for future grant under the Plan.

Stock Options

The following table sets forth the activity for the Company's stock options during the periods presented:

	Number of Options	Weighted-Average Exercise Price per Share	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value
Outstanding at September 13, 2021	—	$ —	—	$ —
Granted	400,000	$ 0.25		
Outstanding at December 31, 2021	400,000	$ 0.25	9.8	$ 700,000
Exercisable at December 31, 2021	22,222	$ 0.25	9.8	$ 38,889
Vested or expected to vest at December 31, 2021	400,000	$ 0.25	9.8	$ 700,000

The fair values of the options granted were estimated based on the Black-Scholes model, using the following assumptions:

	2021
Expected volatility	69.5%
Weighted-average risk-free rate	1.11%
Expected term in years	5.77
Expected dividend yield	—%

During 2021, the Company granted 400,000 options with an exercise price of $0.25 per share that vest monthly over three years. The weighted-average grant date fair value of options granted during 2021 was $0.15. The Company recorded stock compensation from options of $4,894 for the period from September 13, 2021 (inception)

10. Stock Compensation Plan (cont.)

through December 31, 2021. As of December 31, 2021, there was $56,004 of unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the Plan, which is expected to be recognized over a weighted average period of approximately 2.8 years.

Stock Awards

In October 2021, the Company issued 1,500,000 shares of restricted common stock to its Chief Executive Officer. The number of shares that vest is dependent on achieving certain performance conditions and dependent market conditions upon the third anniversary from the date of grant. The Company determined that the fair value of this award was $0.25 per share for a total value of $375,000. Upon reaching the performance condition, the Company will recognize stock compensation expense over the remaining measurement period. No stock compensation was recorded for this award in 2021.

In October 2021, the Company also issued 600,000 shares of restricted common stock to a consultant who is also a member the board of directors, that vest annually over three years. The Company determined that the fair value of this award was $0.25 per share for a total value of $150,000. Stock compensation totaling $8,333 was recorded for this award in 2021 and $141,667 of unrecognized compensation cost related to non-vested portion is expected to be recognized over the next 2.8 years. The consulting agreement also includes potential future awards of common stock for continued service. The number of shares to be awarded will be determined on a quarterly basis of $40,000 divided by the then fair value of a share of common stock for up to eight calendar quarters following the first anniversary.

The following table summarizes vesting of restricted common stock:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Unvested as of September 13, 2021 (inception)	—	$ —
Issuance of restricted common stock	2,100,000	$ 0.25
Unvested at December 31, 2021	2,100,000	$ 0.25

Stock-based Compensation Expense

Stock-based compensation expense for all stock awards recognized in the accompanying consolidated statements of operations for the period September 13, 2021 (inception) through December 31, 2021 is as follows:

	2021
General and administrative	$ 513,227
Total	$ 513,227

11. Net Loss Per Share

The Company has reported losses since inception and has computed basic net loss per share attributable to common stockholders by dividing net loss attributable to common stockholders by the weighted-average number of shares of Common Stock outstanding for the period, without consideration for potentially dilutive securities. The Company computes diluted net loss per share of Common Stock after giving consideration to all potentially dilutive shares of common stock, including options to purchase common stock and warrants to purchase common stock, outstanding during the period determined using the treasury-stock and if-converted methods, except where the effect of including such securities would be antidilutive. Because the Company has reported net losses since inception, these potential shares of Common Stock and Preferred Stock have been anti-dilutive and basic and diluted loss per share were the same for all periods presented.

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

11. Net Loss Per Share(cont.)

The following table sets forth the computation of basic and diluted net loss per share for the period September 13, 2021 (inception) through December 31, 2021:

	2021
Numerator:	
Net loss	$ (2,607,927)
Denominator:	
Weighted average common stock outstanding, basic and diluted	16,246,432
Net loss per share, basic and diluted	$ (0.16)

The following table sets forth the potentially dilutive securities that have been excluded from the calculation of diluted net loss per share because to include them would be anti-dilutive (in common stock equivalent shares) at December 31, 2021:

	2021
Options to purchase common stock	400,000
Warrants to purchase Common Stock	7,230,822
Total shares of common stock equivalents	7,630,822

12. Income Taxes

The effective tax rate of the Company's provision (benefit) for income taxes differs from the federal statutory rate for the period September 13, 2021 (inception) through December 31, 2021 as follows:

	2021
Tax computed at federal statutory rate	$ 21.00%
Earnings in jurisdictions taxed at rates different from the statutory U.S. federal tax rate	4.11%
Permanent differences	(22.95)%
Valuation allowance	(2.16)%
Income tax expense	$ —

Deferred income taxes reflect the net tax effects of (a) temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, and (b) operating losses and tax credit carryforwards. Significant components of deferred tax assets (liabilities) at December 31, 2021 are as follows:

	December 31, 2021
Deferred tax assets:	
Net operating loss carryforwards	$ 140,241
Right-of-use lease liability	264,249
Total deferred tax assets	404,490
Deferred tax liabilities:	
Share-based compensation	(91,691)
Right-of-use lease asset	(261,281)
Total deferred tax liabilities	(352,972)
Total net deferred tax assets	51,518
Less: valuation allowance	(51,518)
Net deferred taxes	$ —

ASP Isotopes Inc.
Notes to Consolidated Financial Statements
For The Period September 13, 2021 (Inception) Through December 31, 2021

12. Income Taxes (cont.)

The Company provided a full valuation allowance on the net deferred tax asset because management has determined that it is more-likely-than-not that the Company will not earn income sufficient to realize the deferred tax assets during the carryforward period. As of December 31, 2021, the Company has federal, state and South Africa NOLs available of approximately $514,562, $514,562 and 99,139, respectively, to offset future taxable income, if any, for federal and state income tax purposes. The state NOLs are carried forward indefinitely until used and never expire. Under the Tax Act, federal NOLs utilized are limited to 80% of taxable income in any year where taxable income is determined without regard to the NOL deduction itself. The Tax Act generally eliminates the ability to carry back any net operating loss to prior taxable years, while allowing unused net operating losses to be carried forward indefinitely.

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. Income tax positions must meet a more likely than not recognition threshold to be recognized. The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest and penalties on the Company's balance sheets and has not recognized interest and/or penalties in the statements of operations and comprehensive loss for the period from September 13, 2021 (inception) through December 31, 2021. Uncertain tax positions are evaluated based upon the facts and circumstances that exist at each reporting period. Subsequent changes in judgment based upon new information may lead to changes in recognition, derecognition, and measurement. Adjustments may result, for example, upon resolution of an issue with the taxing authorities or expiration of a statute of limitations barring an assessment for an issue. As of December 31, 2021, there were no uncertain tax positions.

As of December 31, 2021, the Company did not recognize any interest and penalties associated with unrecognized tax benefits. Due to net operating losses incurred, tax years from inception remain open to examination by the Federal and State taxing jurisdictions to which we are subject. The Company is not currently under Internal Revenue Services (IRS), state or local tax examination.

Ownership changes, as defined in the IRC, may limit the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income pursuant to IRC Section 382 or similar provisions. Subsequent ownership changes could further affect the limitation in future years. The Company has not completed a study to assess whether a change of control has occurred or whether there have been multiple changes of control since the Company's formation due to the significant complexity and cost associated with such study and because there could be additional changes in control in the future. As a result, the Company is not able to estimate the effect of the change in control, if any, on the Company's ability to utilize net operating loss and research and development credit carryforwards in the future.

13. Subsequent Events

The Company has evaluated subsequent events through April 21, 2022, the date on which the accompanying financial statements were issued and none were noted except as previously disclosed in Note 8 and Note 9.

Shares

ASP Isotopes Inc.

Common Stock

Sole Book Running Manager

Revere Securities LLC

Through and including _________, 2022 (the 25th day after the date of this prospectus), all dealers effecting transactions in the common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all expenses to be paid by ASP Isotopes Inc. (the “Registrant”), incurred or to be incurred in connection with this offering. All amounts shown are estimates except for the SEC registration fee and the FINRA filing fee.

SEC registration fee	$ 1,500.00
FINRA filing fee	2,920.00
Exchange listing fee	75,000.00
Printing and engraving expenses	75,000.00
Legal fees and expenses	550,000.00
Accounting fees and expenses	190,000.00
Transfer agent and registrar fees	6,500.00
Miscellaneous expenses	24,080.00
Total	$ 925,000.00

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation’s board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act. The Registrant’s amended and restated certificate of incorporation that will be in effect upon the closing of this offering permits the Registrant to indemnify its directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and the Registrant’s amended and restated bylaws that will be in effect upon the closing of this offering provide that the Registrant will indemnify its directors and officers and permit the Registrant to indemnify its employees and other agents, in each case to the maximum extent permitted by the Delaware General Corporation Law.

The Registrant has entered into indemnification agreements with its directors and officers, whereby it have agreed to indemnify its directors and officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that such director or officer is or was a director, officer, employee or agent of the Registrant, provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, the best interest of the Registrant. At present, there is no pending litigation or proceeding involving a director or officer of the Registrant regarding which indemnification is sought, nor is the registrant aware of any threatened litigation that may result in claims for indemnification.

The Registrant maintains insurance policies that indemnify its directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his or her capacity as such.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Set forth below is information regarding unregistered securities issued by us since our inception on September 13, 2021. Also included is the consideration received by us for such securities and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed. None of the following transactions involved any underwriters, underwriting discounts or commissions, or any public offering, except as noted in paragraph 6 below.

1. On September 13, 2021, we closed stock purchase agreements with our founders to issue an aggregate of 2,000,000 shares of common stock in consideration for the purchasers’ transfer to the company of all of the purchaser’s rights in certain business concepts and technology.

2. On September 15, 2021, we issued two consultants each a warrant to purchase 3,615,411shares of common stock, with an exercise price per share of $0.01 and a term of two (2) years, for services. On January 28, 2022, the holders of the warrants exercised their warrants and the company issued an aggregate of 7,194,847 shares of common stock.

3. In late September 2021, we sold and issued an aggregate of 8,300,000 shares of common stock to a total of 9 accredited investors at a purchase price of $0.25 per share, for an aggregate purchase price of $2,075,000.

4. In October 2021 through early November 2021, we sold and issued an aggregate of 6,800,000shares of common stock to a total of 14 accredited investors at a purchase price of $0.25 per share, for an aggregate purchase price of $1,700,000.

5. In October 2021, we sold and issued an aggregate of 1,500,000 shares of our common stock pursuant to a performance share award grant notice to Paul Mann, our Chairman, Chief Executive Officer and director, as consideration for his services to us. In addition, in October 2021, we sold and issued 600,000 shares of our common stock pursuant to a restricted stock award grant notice to a consultant (an entity owned by Sergey Vasnetsov, our director), as consideration for services to us as contemplated by the advisory agreement with us.

6. In late November 2021 through April 2022, we sold and issued an aggregate of 3,012,280shares of common stock to a total of 74 accredited investors at a purchase price of $2.00 per share, for an aggregate purchase price of $6,024,560. Revere Securities LLC acted as placement agent in connection with such offering of shares of our common stock and in connection therewith we agreed to pay to Revere Securities LLC (i) a cash fee equal to 8.0% of the aggregate gross proceeds raised in such offering and (ii) shares of our common stock equal to 4.0% of the aggregate number of shares of common stock sold in such offering.

7. In July 2022, we sold and issued (i) 600,000 shares of our common stock pursuant to a restricted stock award grant notice to a consultant (an entity owned by Sergey Vasnetsov, our director), as consideration for services to us as contemplated by the advisory agreement (as amended) with us and (ii) 100,000 shares of our common stock pursuant to a restricted stock award grant notice to a consultant as consideration for services to us.

8. In October 2022, we issued to our executive officers, directors and consultants 3,000,000shares of restricted stock that we anticipate making upon the effectiveness of the registration statement of which this prospectus is a part. All of these awards are contingent upon completion of this offering.

9. From September 13, 2021 to the effective date of this registration statement, we granted stock options under our 2021 equity incentive plan, as amended (the Prior Plan), to purchase up to an aggregate of 3,151,000 shares of our common stock to our employees, directors and consultants, at a weighted-average exercise price of $1.78 per share. Through the effective date of this registration statement, no shares of common stock were issued upon the exercise of options granted to employees, directors and consultants.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or our public offering, except as noted in paragraph 6 above. Except as described in the following paragraph, we believe that the transactions described above were exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act (and Regulation D promulgated thereunder). The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof. The sales of these securities were made without any general solicitation or advertising.

The offers, sales and issuances of the securities described in paragraphs (2), (5), (7) and (8) were deemed to be exempt from registration under the Securities Act in reliance on either Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701 or Section 4(a)(2) in that the issuance of securities to the accredited investors did not involve a public offering. The recipients of such securities were our employees, directors or bona fide consultants and received the securities under the Prior Plan.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits.

Exhibit Number	Exhibit Description
1.1	Form of Underwriting Agreement.
3.1*	Certificate of Incorporation, as currently in effect.
3.2*	Bylaws, as currently in effect.
3.3	Amended and Restated Certificate of Incorporation, to be effective immediately prior to closing of this offering.
3.4	Amended and Restated Bylaws, to be effective immediately prior to closing of this offering.
4.1+	Form of Warrant.
5.1	Opinion of DLA Piper LLP (US).
10.1+	ASP Isotopes Inc. 2021 Stock Incentive Plan and form of award agreements thereunder.
10.2+	ASP Isotopes Inc. 2022 Equity Incentive Plan and form of award agreements thereunder.
10.3+	Performance Share Award Grant Notice and Performance Share Award Agreement with Paul Mann, dated October 4, 2021, as amended.
10.4*+	Form of Indemnification Agreement between the registrant and each of its directors and executive officers.
10.5+	Form of Director Agreement.
10.6+	Executive Employment Agreement by and between the registrant and Paul Mann, dated October 4, 2021.
10.7+	Executive Employment Agreement by and between ASP Isotopes Guernsey Limited and Hendrik Strydom, dated January 19, 2022.
10.8+	Executive Employment Agreement by and between ASP Isotopes Guernsey Limited and Robert Ainscow, dated October 4, 2021, as amended.
10.9	Advisory Agreement by and between the registrant and ChemBridges LLC, dated October 27, 2021, as amended.
10.10	License Agreement between ASP Isotopes South Africa (Proprietary) Limited (formerly PDS Photonica Holdings South Africa (Proprietary) Limited) and Klydon (Proprietary) Limited dated September 30, 2021, as amended.
10.11	License Agreement between ASP Isotopes South Africa (Proprietary) Limited and Klydon (Proprietary) Limited dated January 25, 2021.
10.12	Contract for a Turnkey Molybdenum Enrichment Plan between ASP Isotopes South Africa (Proprietary) Limited (formerly PDS Photonica Holdings South Africa (Proprietary) Limited) and Klydon (Proprietary) Limited dated November 1, 2021.
10.13	Letter Agreements between the registrant and Dr Einar Ronander and Dr Hendrik Strydom, dated January 2021
10.14	Chief Scientific Adviser between the registrant and Dr Einar Ronander, dated January 2021
10.15	Lease for Molybdenum Processing Plant between ASP Isotopes South Africa (Proprietary) Limited (formerly PDS Photonica Holdings South Africa (Proprietary) Limited) and Morgan Creek Properties 311 Pty Ltd.
10.16	Form of Subscription Agreement.
10.17	License Agreement between ASP Isotopes UK Ltd and Klydon (Proprietary) Limited dated July 26, 2022.
21.1*	List of Subsidiaries of the Registrant.
23.1	Consent of EisnerAmper LLP, independent registered public accounting firm.
23.2	Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page hereto).
107	Filing fee table.

* Previously filed.
\+ Management contract or compensatory plan or arrangement.

(b) *Financial Statement Schedules*. All financial statement schedules are omitted because the information called for is not required or is shown either in the consolidated financial statements or in the notes thereto.

(c) *Filing Fee Table*. The Filing Fee Table and related disclosure is filed herewith as Exhibit 107.

ITEM 17. UNDERTAKINGS.

Insofar as indemnification for liabilities arising under the Securities Act, may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, as amended, and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Amendment No. 1 to the registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Boca Raton, Florida, on the 11th day of October, 2022.

	ASP Isotopes Inc.	
	By:	/s/ Paul E. Mann
		Paul E. Mann *Chairman and Chief Executive Officer*

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Paul E. Mann and Hendrik Strydom, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution and full power to act without the other, for him or her and to act in his or her name, place and stead, in any and all capacities, to execute the Registration Statement on Form S-1 of ASP Isotopes Inc. and any or all amendments (including post-effective amendments) thereto and any new registration statement with respect to the offering contemplated hereby filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 1 to the registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Paul E. Mann Paul E. Mann	Chairman, Chief Executive Officer and Director (Principal Executive Officer)	October 11, 2022
/s/ Robert Ainscow Robert Ainscow	Interim Chief Financial Officer (Principal Financial and Accounting Officer)	October 11, 2022
/s/ Joshua Donfeld Joshua Donfeld	Director	October 11, 2022
/s/ Duncan Moore, Ph.D. Duncan Moore, Ph.D.	Director	October 11, 2022
/s/ Hendrik Strydom, Ph.D. Hendrik Strydom, Ph.D.	Director	October 11, 2022
/s/ Sergey Vasnetsov Sergey Vasnetsov	Director	October 11, 2022
/s/ Todd Wider, M.D. Todd Wider, M.D.	Director	October 11, 2022

Exhibit 1.1

ASP Isotopes Inc.

UNDERWRITING AGREEMENT

[●], 2022

REVERE SECURITIES LLC

As Representative of the
several Underwriters listed
in Schedule I hereto
c/o Revere Securities LLC
650 5th Avenue, 35th Floor
New York, NY 10019

Ladies and Gentlemen:

ASP Isotopes Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to the underwriters named in **Schedule I** hereto (the "Underwriters," or each, an "Underwriter"), for whom Revere Securities LLC ("Revere Securities") is acting as the Representative (the "Representative"), an aggregate of [•] shares of common stock, par value $0.01 per share (the "Common Stock") of the Company (the "Firm Shares"). The Company also proposes to sell to the Underwriters, upon the terms and conditions set forth in Section 4 hereof, in the aggregate, up to [●] additional shares of Common Stock representing 15% of the Firm Shares sold in the offering from the Company (the "Option Shares" and together with the Firm Shares, the "Shares").

The Company and the several Underwriters hereby confirm their agreement as follows:

1. ***Registration Statement and Prospectus***.

The Company has prepared and filed with the Securities and Exchange Commission (the "Commission") a registration statement covering the Shares on Form S-1 (File No. 333-333-267392) under the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations (the "Rules and Regulations") of the Commission thereunder, including a preliminary prospectus relating to the Shares and such amendments to such registration statement (including post effective amendments) as may have been required to the date of this Agreement. Such registration statement, as amended (including any post effective amendments), has been declared effective by the Commission. Such registration statement, including amendments thereto (including post effective amendments thereto) and all documents and information deemed to be a part of the Registration Statement through incorporation by reference or otherwise at the time of effectiveness thereof (the "Effective Time"), the exhibits and any schedules thereto at the Effective Time or thereafter during the period of effectiveness and the documents and information otherwise deemed to be a part thereof or included therein by the Securities Act or otherwise pursuant to the Rules and Regulations at the Effective Time or thereafter during the period of effectiveness, is herein called the "Registration Statement." If the Company has filed or files an abbreviated registration statement pursuant to Rule 462(b) under the Securities Act (the "Rule 462 Registration Statement"), then any reference herein to the term Registration Statement shall include such Rule 462 Registration Statement. Any preliminary prospectus included in the Registration Statement or filed with the Commission pursuant to Rule 424(a) under the Securities Act is hereinafter called a "Preliminary Prospectus." The Preliminary Prospectus relating to the Shares that was included in the Registration Statement immediately prior to the pricing of the offering contemplated hereby is hereinafter called the "Pricing Prospectus."

The Company is filing with the Commission pursuant to Rule 424(b) under the Securities Act a final prospectus covering the Shares, which includes the information permitted to be omitted therefrom at the Effective Time by Rule 430A under the Securities Act. Such final prospectus, as so filed, is hereinafter called the "Final Prospectus." The Final Prospectus, the Pricing Prospectus and any Preliminary Prospectus in the form in which they were included in the Registration Statement or filed with the Commission pursuant to Rule 424 under the Securities Act is hereinafter called a "Prospectus." Reference made herein to any Preliminary Prospectus, the Pricing Prospectus or to the Prospectus shall be deemed to refer to and include any documents incorporated by reference therein and any reference to any amendment or supplement to any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any document filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations of the Commissions thereunder, incorporated by reference in such Preliminary Prospectus or the Final Prospectus, as the case may be.

The Commission has not notified the Company of any objection to the use of the form of Registration Statement or any post-effective amendment thereto.

2. ***Representations and Warranties of the Company Regarding the Offering.***

(a) The Company represents and warrants to, and agrees with, the Underwriters, as of the date hereof, as of the Closing Date (as defined in Section 4(d) below) and as of each Option Closing Date (as defined in Section 4(b) below), as follows:

(i) **No Material Misstatements or Omissions**. At each time of effectiveness, at the date hereof, at the Closing Date, and at each Option Closing Date, if any, the Registration Statement and any post-effective amendment thereto complied or will comply in all material respects with the requirements of the Securities Act and the Rules and Regulations and did not, does not, and will not, as the case may be, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Time of Sale Disclosure Package (as defined in Section 2(a)(iv)(A)(1) below) as of **[●]** (Eastern time) (the "Applicable Time") on the date hereof, at the Closing Date and on each Option Closing Date, if any, and the Final Prospectus, as amended or supplemented, as of its date, at the time of filing pursuant to Rule 424(b) under the Securities Act, at the Closing Date and at each Option Closing Date, if any, and any individual Written Testing-the-Waters Communication, when considered together with the Time of Sale Disclosure Package, did not, does not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which such statements were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences shall not apply to statements in or omissions from the Registration Statement, the Time of Sale Disclosure Package or any Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(g). The Registration Statement contains all exhibits and schedules required to be filed by the Securities Act or the Rules and Regulations. No order preventing or suspending the effectiveness or use of the Registration Statement, or any Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission.

(ii) **Marketing Materials**. The Company has not distributed any prospectus or other offering material in connection with the offering and sale of the Shares other than the Time of Sale Disclosure Package, any Testing-the-Waters Communications, and the roadshow or investor presentations delivered to and approved by the Representative for use in connection with the marketing of the offering of the Shares (the "Marketing Materials").

(iii) **Testing-the-Waters Communications.** The Company (i) has not alone engaged in any Testing-the-Waters Communication in connection with the offering contemplated hereby other than Testing the Waters Communications with the consent of the Representative with entities that are qualified institutional buyers

within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (ii) has not authorized anyone other than the Representative to engage in any Testing-the-Waters Communication in connection with the offering contemplated hereby. The Company has not distributed any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act ("Written Testing-the-Waters Communications.") other than those previously provided to the Underwriters and listed on Schedule IV. "Testing-the-Waters Communication" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act. Each Written Testing-the-Waters Communications, did not, as of the Applicable Time, and at all times through the completion of the public offer and sale of Shares will not, include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus.

(iv) **Accurate Disclosure**. (A) The Company has provided a copy to the Underwriters of each Issuer Free Writing Prospectus (as defined below) used in the sale of Shares. The Company has filed all Issuer Free Writing Prospectuses required to be so filed with the Commission, and no order preventing or suspending the effectiveness or use of any Issuer Free Writing Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission. When taken together with the rest of the Time of Sale Disclosure Package or the Final Prospectus, no Issuer Free Writing Prospectus, as of its issue date and at all subsequent times though the completion of the public offer and sale of the Shares, has, does or will include (1) any untrue statement of a material fact or omission to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which such statements were made, not misleading, or (2) information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Final Prospectus. The representations and warranties set forth in the immediately preceding sentence shall not apply to statements in or omissions from the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by any Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(g). As used in this paragraph and elsewhere in this Agreement:

(1) "Time of Sale Disclosure Package" means the Prospectus most recently filed with the Commission before the time of this Agreement, including any preliminary prospectus supplement deemed to be a part thereof, each Issuer Free Writing Prospectus, and the description of the transaction provided by the Underwriters included on Schedule II.

(2) "Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, relating to the Shares that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) or (d)(8) under the Securities Act, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) under the Securities Act.

(B) At the time of filing of the Registration Statement and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405 under the Securities Act or an "excluded issuer" as defined in Rule 164 under the Securities Act.

(C) Each Issuer Free Writing Prospectus listed on Schedule III satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period, all other conditions as may be applicable to its use as set forth in Rules 164 and 433 under the Securities Act, including any legend, record-keeping or other requirements.

(v) **Financial Statements**. The financial statements of the Company, together with the related notes and schedules, included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus comply in all material respects with the applicable requirements of the Securities Act, the Exchange Act and the Rules and Regulations, and fairly present the financial condition of the Company as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with U.S. generally accepted accounting principles ("GAAP") consistently applied throughout the periods involved. No other financial statements or schedules are required under the Securities Act, the Exchange Act, or the Rules and Regulations to be included in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus.

(vi) **Independent Accountants.** To the Company's knowledge, EisnerAmper LLP, which has expressed its opinion with respect to the financial statements and schedules included as a part of the Registration Statement and included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, is an independent public accounting firm with respect to the Company within the meaning of the Securities Act and the Rules and Regulations.

(vii) **Accounting and Disclosure Controls.** Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, the Company and its subsidiaries are in the process of developing systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act) that will comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Since the date of the latest audited financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting adversely. As used in this Agreement, the term "subsidiary" or "subsidiaries" means ASP Isotopes Guernsey Limited, a Guernsey corporation and ASP Isotopes South Africa (Proprietary) Limited, a South African corporation, Enriched Energy LLC, a Delaware limited liability company, and ASP Isotopes UK Ltd, a company incorporated in England and Wales.

Except as disclosed in the Registration Statement, the Company has designed a system of "disclosure controls and procedures," (as defined under Rules 13a-15(e) under the Exchange Act), that has been designed to ensure that material information relating to the Company and any subsidiaries is made known to the Company's principal executive officer and principal financial officer by others within those entities.

(viii) **Forward-Looking Statements**. The Company had a reasonable basis for, and made in good faith, each "forward-looking statement" (within the meaning of Section 27A of the Securities Act or Section 21E of the Exchange Act) contained or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package, the Final Prospectus or the Marketing Materials.

(ix) **Statistical and Marketing-Related Data**. All statistical or market-related data included or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, or included in the Marketing Materials, are based on or derived from sources that the Company reasonably believes to be reliable and accurate, and the Company has obtained the written consent to the use of such data from such sources, to the extent required.

(x) **Trading Market**. The Common Stock will be registered pursuant to Section 12(b) of the Exchange Act and are approved for listing on the Nasdaq Capital Market (the "Nasdaq"). When issued, the Shares will be listed on the Nasdaq. The Company has taken all actions it deems reasonably necessary or advisable to take on or prior to the date of this Agreement to assure that it will be in compliance in all material respects with all applicable corporate governance requirements set forth in the rules of the Nasdaq that are then in effect and will take all action it deems reasonably necessary or advisable to assure that it will be in compliance in all material respects with other applicable corporate governance requirements set forth in the Nasdaq rules not currently in effect upon and all times after the effectiveness of such requirements.

(xi) **Absence of Manipulation**. The Company has not taken, directly or indirectly, any action that is designed to or that has constituted or that would reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(xii) **Investment Company Act**. The Company is not and, after giving effect to the offering and sale of the Shares and the application of the net proceeds thereof, will not be an "investment company," as such term is defined in the Investment Company Act of 1940, as amended.

3. ***Representations and Warranties Regarding the Company.***

(a) The Company represents and warrants to, and agrees with, the several Underwriters, as of the date hereof and as of the Closing Date and as of each Option Closing Date, if any, as follows:

(i) **Good Standing**. Each of the Company and its subsidiaries has been duly organized and is validly existing as a corporation or other entity in good standing under the laws of its jurisdiction of incorporation or formation. Each of the Company and its subsidiaries has the power and authority (corporate or otherwise) to own its properties and conduct its business as currently being carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, and is duly qualified to do business as a foreign corporation or other entity in good standing in each jurisdiction in which it owns or leases real property or in which the conduct of its business makes such qualification necessary, except where the failure to so qualify would not have or be reasonably likely to result in a material adverse effect upon the business, prospects, properties, operations, condition (financial or otherwise) or results of operations of the Company and its subsidiaries, taken as a whole, or in its ability to perform its obligations under this Agreement ("Material Adverse Effect").

(ii) **Authorization**. The Company has the power and authority to enter into this Agreement and to authorize, issue and sell the Shares as contemplated by this Agreement. This Agreement has been duly authorized by the Company, and when executed and delivered by the Company, will constitute the valid, legal and binding obligations of the Company, enforceable against the Company in accordance with their respective terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity.

(iii) **Issuance of Securities**. The Shares are duly authorized for issuance and sale pursuant to this Agreement, and when issued and paid for in accordance with this Agreement, will be validly issued, fully paid and non-assessable, and will be free and clear of any lien, charge, pledge, security interest, encumbrance, right of first refusal, registration right, preemptive right or other restriction imposed by the Company. The holders of the Shares will not be subject to personal liability by reason of being such holders. The Shares are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. All corporate action required to be taken for the authorization, issuance and sale of the Shares has been duly and validly taken. The Shares conform in all material respects to all statements with respect thereto contained in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus.

(iv) **Reservation of Common Stock**. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times from its duly authorized capital stock, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue Option Shares upon exercise of the Over-allotment Option (as defined below).

(v) **Contracts.** Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, the execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated will not (A) result in a material breach or material violation of any of the terms and provisions of, or constitute a default under, any law, order, rule or regulation to which the Company or any subsidiary is subject, or by which any property or asset of the Company or any subsidiary is bound or affected, or (B) conflict with, result in any material violation or material breach of, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or give to others any right of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) (a "Default Acceleration Event") of, any agreement, lease, credit facility, debt, note, bond, mortgage, indenture or other instrument (the "Contracts") or material obligation or other material understanding to which the Company or any subsidiary is a party or by which any property or asset of the Company or any subsidiary is bound or affected, except to the extent that such conflict, default, or Default Acceleration Event not reasonably likely to result in a Material Adverse Effect, or (C) result in a material breach or material violation of any of the terms and provisions of, or constitute a default under, the Company's charter or by-laws.

(vi) **No Violations of Governing Documents**. Neither the Company nor any of its subsidiaries is in violation, breach or default under its certificate of incorporation, by-laws or other equivalent organizational or governing documents.

(vii) **Consents**. No consents, approvals, orders, authorizations or filings are required on the part of the Company in connection with the execution, delivery or performance of this Agreement and the issue and sale of the Shares, except (A) the registration under the Securities Act of the Shares, which has been deemed effective by the Commission, (B) the necessary filings and approvals from the Nasdaq to list the Shares, which approvals have been received, (C) such consents, approvals, authorizations, registrations or qualifications as may be required under state or foreign securities or Blue Sky laws and the rules of the Financial Industry Regulatory Authority, Inc. ("FINRA") in connection with the purchase and distribution of the Shares by the several Underwriters, and (D) such consents, approvals, orders, authorizations and filings the failure of which to make or obtain is not reasonably likely to result in a Material Adverse Effect.

(viii) **Capitalization**. The Company has an authorized capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. All of the issued and outstanding shares of capital stock of the Company are duly authorized and validly issued, fully paid and nonassessable, and have been issued in compliance with all applicable securities laws, and conform to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. All of the issued shares of capital stock or equity interests, as applicable, of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and, except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims. Except for the issuances of warrants and preferred stock in the ordinary course of business and described in the Prospectus, since the respective dates as of which information is provided in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company has not entered into or granted any convertible or exchangeable securities, options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares of the capital stock of the Company. The Shares, when issued and paid for as provided herein, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with all applicable securities laws, and will be free of preemptive, registration or similar rights and will conform to the description of the capital stock of the Company contained in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus.

(ix) **Taxes**. Each of the Company and its subsidiaries has (a) filed all foreign, federal, state and local tax returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof (except where the failure to file would not, individually or in the aggregate, have a Material Adverse Effect) and (b) paid all taxes (as hereinafter defined) shown as due and payable on such returns that were filed and has paid all taxes imposed on or assessed against the Company or such respective subsidiary (except where the failure to pay would not, individually or in the aggregate, have a Material Adverse Effect). The provisions for taxes payable, if any, shown on the financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. To the Company's knowledge, no issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company or its subsidiaries, and no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company or its subsidiaries that would be reasonably likely to result in a Material Adverse Effect. The term "taxes" mean all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges of any kind whatever, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements, and other documents required to be filed in respect to taxes.

(x) **Material Change**. Since the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, (a) neither the Company nor any of its subsidiaries has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock; (c) there has not been any change in the capital stock of the Company or any of its subsidiaries (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding warrants or preferred stock, upon the conversion of outstanding shares of preferred stock or other convertible securities or the issuance of restricted stock awards or restricted stock units under the Company's existing stock awards plan, or any new grants thereof in the ordinary course of business), (d) there has not been any material change in the Company's long-term or short-term debt, and (e) there has not been the occurrence of any Material Adverse Effect.

(xi) **Absence of Proceedings**. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, there is not pending nor, to the knowledge of the Company, threatened, any action, suit or proceeding to which the Company or any of its subsidiaries is a party or of which any property or assets of the Company or any of its subsidiaries is the subject before or by any court or governmental agency, authority or body, or any arbitrator or mediator, which is reasonably likely to result in a Material Adverse Effect.

(xii) **Permits**. The Company and each of its subsidiaries holds, and is in compliance with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders ("Permits") of any governmental or self-regulatory agency, authority or body required for the conduct of its business, and all such Permits are in full force and effect, in each case except where the failure to hold, or comply with, any of them is not reasonably likely to result in a Material Adverse Effect or adversely affect the consummation of the transactions contemplated by this Agreement and the Warrant Agreement.

(xiii) **Good Title**. The Company and each of its subsidiaries have good and marketable title to all property (whether real or personal) described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus as being owned by them that are material to the business of the Company, in each case free and clear of all liens, claims, security interests, other encumbrances or defects, except those that are disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus and those that are not reasonably likely to result in a Material Adverse Effect. The property held under lease by the Company and its subsidiaries is held by them under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company and its subsidiaries.

(xiv) **Intellectual Property**. The Company and each of its subsidiaries owns or possesses or has valid right to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets and similar rights ("Intellectual Property") necessary for the conduct of the business of the Company and its subsidiaries as currently carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. To the knowledge of the Company, no action or use by the Company or any of its subsidiaries involves or gives rise to any infringement of, or license or similar fees for, any Intellectual Property of others, except where such action, use, license or fee is not reasonably likely to result in a Material Adverse Effect. Neither the Company nor any of its subsidiaries have received any notice alleging any such infringement or fee. To the Company's knowledge, none of the technology employed by the Company or any subsidiary has been obtained or is being used by the Company or such subsidiary in violation of any contractual obligation binding on the Company or such subsidiary or, to the Company's knowledge, any of the officers, directors or employees of the Company or any subsidiary, or, to the Company's knowledge, otherwise in violation of the rights of any persons, except in each case for such violations as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(xv) **Employment Matters**. There is (A) no unfair labor practice complaint pending against the Company, or any of its subsidiaries, nor to the Company's knowledge, threatened against it or any of its subsidiaries, before the National Labor Relations Board, any state or local labor relation board or any foreign labor relations board, and no grievance or arbitration proceeding arising out of or under any collective bargaining agreement is so pending against the Company or any of its subsidiaries, or, to the Company's knowledge, threatened against it and (B) no labor disturbance by the employees of the Company or any of its subsidiaries exists or, to the Company's knowledge, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its subsidiaries, principal suppliers, manufacturers, customers or contractors, that could reasonably be expected, singularly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or any subsidiary plans to terminate employment with the Company or any such subsidiary.

(xvi) **ERISA Compliance**. No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the "Code")) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan of the Company or any of its subsidiaries which would reasonably be expected to, singularly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company or any of its subsidiaries is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and its subsidiaries have not incurred and could not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension plan for which the Company or any of its subsidiaries would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and, to the Company's knowledge, nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification.

(xvii) **Environmental Matters**. The Company and its subsidiaries are in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses ("Environmental Laws"), except where the failure to comply has not had and would not reasonably be expected to have, singularly or in the

aggregate, a Material Adverse Effect. There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company or any of its subsidiaries (or, to the Company's knowledge, any other entity for whose acts or omissions the Company or any of its subsidiaries is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any of its subsidiaries, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which has not had and would not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company or any of its subsidiaries has knowledge.

(xviii) **SOX Compliance**. The Company has taken all actions it deems reasonably necessary or advisable to take on or prior to the date of this Agreement to assure that, upon and at all times after the effectiveness of the Registration Statement, it will be in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof. (the "Sarbanes-Oxley Act") that are then in effect and will take all action it deems reasonably necessary or advisable to assure that it will be in compliance in all material respects with other applicable provisions of the Sarbanes-Oxley Act not currently in effect upon it and at all times after the effectiveness of such provisions.

(xix) **Money Laundering Laws**. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened. "Governmental Entity" shall be defined as any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency (whether foreign or domestic) having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations.

(xx) **Foreign Corrupt Practices Act** Neither the Company, any of its subsidiaries, nor any director or officer of the Company or any subsidiary, nor, to the knowledge of the Company, any employee, Representative, agent, affiliate of the Company or any of its subsidiaries or any other person acting on behalf of the Company or any of its subsidiaries, is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA and the Company and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(xxi) **OFAC**. Neither the Company, any of its subsidiaries nor any director or officer of the Company or any subsidiary, nor, to the knowledge of the Company, any employee, Representative, agent or affiliate of the Company or any of its subsidiaries or any other person acting on behalf of the Company or any of its subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Company will not directly or indirectly use the proceeds of the offering of the Shares contemplated hereby, or lend, contribute or otherwise make available such proceeds to any person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(xxii) **Insurance**. The Company and each of its subsidiaries carries, or is covered by, insurance in such amounts and covering such risks as is adequate for the conduct of its business and the value of its properties and as is customary for companies engaged in similar businesses in similar industries.

(xxiii) **Books and Records**. The minute books of the Company and each of its subsidiaries have been made available to the Underwriters and counsel for the Underwriters, and such books (i) contain a complete summary of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company (or analogous governing bodies and interest holders, as applicable), and each of its subsidiaries since the time of its respective incorporation or organization through the date of the latest meeting and action, and (ii) accurately in all material respects reflect all transactions referred to in such minutes.

(xxiv) **No Undisclosed Contracts**. There is no Contract or document required by the Securities Act or by the Rules and Regulations to be described in the Registration Statement, the Time of Sale Disclosure Package or in the Final Prospectus or to be filed as an exhibit to the Registration Statements which is not so described or filed therein as required; and all descriptions of any such Contracts or documents contained in the Registration Statement, the Time of Sale Disclosure Package and in the Final Prospectus are accurate and complete descriptions of such documents in all material respects. Other than as described in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, no such Contract has been suspended or terminated for convenience or default by the Company or any subsidiary party thereto or any of the other parties thereto, and neither the Company nor any of its subsidiaries has received notice, and the Company has no knowledge, of any such pending or threatened suspension or termination.

(xxv) **No Undisclosed Relationships**. No relationship, direct or indirect, exists between or among the Company or any of its subsidiaries on the one hand, and the directors, officers, shareholders (or analogous interest holders), customers or suppliers of the Company or any of its subsidiaries on the other hand, which is required to be described in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus and which is not so described.

(xxvi) **Insider Transactions**. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees of indebtedness by the Company or any of its subsidiaries to or for the benefit of any of the officers or directors of the Company, any of its subsidiaries or any of their respective family members. All transactions by the Company with office holders or control persons of the Company have been duly approved by the board of directors of the Company, or duly appointed committees or officers thereof, if and to the extent required under applicable law.

(xxvii) **No Registration Rights**. No person or entity has the right to require registration of Common Stock or other securities of the Company or any of its subsidiaries within 180 days of the date hereof because of the filing or effectiveness of the Registration Statement or otherwise, except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. There are no persons with registration rights or similar rights to have any securities registered by the Company or any of its subsidiaries under the Securities Act.

(xxviii) **Continued Business**. No supplier, customer, distributor or sales agent of the Company or any subsidiary has notified the Company or any subsidiary that it intends to discontinue or decrease the rate of business done with the Company or any subsidiary, except where such discontinuation or decrease has not

resulted in and could not reasonably be expected to result in a Material Adverse Effect.

(xxix) **No Finder's Fee**. There are no claims, payments, issuances, arrangements or understandings for services in the nature of a finder's, consulting or origination fee with respect to the introduction of the Company to any Underwriter or the sale of the Shares hereunder or any other arrangements, agreements, understandings, payments or issuances with respect to the Company that may affect the Underwriter's compensation, as determined by FINRA.

(xxx) **Compensation and Fees.** Other than as described in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to (i) any person, as a finder's fee, investing fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who provided capital to the Company, (ii) any FINRA member, or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member within the 12-month period prior to the date on which the Registration Statement was filed with the Commission ("Filing Date") or thereafter.

(xxxi) **Proceeds**. None of the net proceeds of the offering will be paid by the Company to any participating FINRA member or any affiliate or associate of any participating FINRA member, except as specifically authorized herein.

(xxxii) **No FINRA Affiliations**. To the Company's knowledge, no (i) officer or director of the Company or its subsidiaries, (ii) owner of 10% or more of any class of the Company's securities or (iii) owner of any amount of the Company's unregistered securities acquired within the 180-day period prior to the Filing Date, has any direct or indirect affiliation or association with any FINRA member. The Company will advise the Representative and counsel to the Underwriters if it becomes aware that any officer, director of the Company or its subsidiaries or any owner of 10% or more of any class of the Company's securities is or becomes an affiliate or associated person of a FINRA member participating in the offering.

(xxxiii) **No Financial Advisor**. Other than the Underwriters, no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the transactions contemplated hereby.

(xxxiv) **Certain Statements**. The statements set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair in all material respects, and under the caption "Description of Securities" insofar as they purport to constitute a summary of (i) the terms of the Company's outstanding securities, (ii) the terms of the Shares, and (iii) the terms of the documents referred to therein, are accurate, complete and fair in all material respects.

(xxxv) **Prior Sales of Securities**. Except as set forth in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company has not sold or issued any shares of Common Stock during the six-month period preceding the date hereof, including any sales pursuant to Rule 144A under, or Regulations D or S of, the Securities Act, other than shares issued pursuant to employee benefit plans, stock option plans or other employee compensation plans or pursuant to outstanding preferred stock, options, rights or warrants or other outstanding convertible securities.

(b) Any certificate signed by any officer of the Company and delivered to the Representative on behalf of the Underwriters or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

4. ***Purchase, Sale and Delivery of Shares.***

(a) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell the Firm Shares to the several Underwriters, and the several Underwriters agree, severally and not jointly, to purchase the Firm Shares set forth opposite the names of the Underwriters in Schedule I hereto. The purchase price for each Firm Share shall be $**[●]** per Firm Share.

(b) The Company hereby grants to the Underwriters, upon the basis of the warranties and representations and subject to the terms and conditions herein set forth, the option (the "Over-allotment Option") to purchase, severally and not jointly, in the aggregate, up to [•] additional Shares, representing 15% of the Firm Shares sold in the offering from the Company. The purchase price to be paid per Option Share shall be equal to the price per Firm Share set forth in Section 4(a) hereof. This Over-allotment Option may be exercised by the Underwriters at any time and from time to time on or before the forty-fifth (45th) day following the date hereof, by written notice to the Company (the "Option Notice"). The Option Notice shall set forth the aggregate number of Option Shares as to which the option is being exercised, and the date and time when the corresponding Option Shares are to be delivered (such date and time being herein referred to as the "Option Closing Date"); *provided*, *however*, that the Option Closing Date shall not be earlier than the Closing Date (as defined below) nor earlier than the first business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised unless the Company and the Underwriter otherwise agree.

(c) Payment of the purchase price for and delivery of the Option Shares shall be made on an Option Closing Date in the same manner and at the same office as the payment for the Firm Shares as set forth in subparagraph (d) below.

(d) The Firm Shares will be delivered by the Company to the Representative, for the respective accounts of the several Underwriters against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company at the offices of Revere Securities LLC, 650 5th Avenue, 35th Floor, New York, NY 10019, or such other location as may be mutually acceptable, at 6:00 a.m. Eastern time, on the third (or if the Firm Shares are priced, as contemplated by Rule 15c6-1(c) under the Exchange Act, after 4:30 p.m. Eastern time, the fourth) full business day following the date hereof, or at such other time and date as the Representative and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act, or, in the case of the Option Shares, at such date and time set forth in the Option Notice. The time and date of delivery of the Firm Shares is referred to herein as the "Closing Date." On the Closing Date, the Company shall deliver the Firm Shares which shall be registered in the name or names and shall be in such denominations as the Representative may request on behalf of the Underwriters at least one (1) business day before the Closing Date, to the respective accounts of the several Underwriters, which delivery shall with respect to the Firm Shares, be made through the facilities of the Depository Trust Company's DWAC system.

(e) It is understood that the Representative has been authorized, for its own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the purchase price for, the Firm Shares and Option Shares the Underwriters have agreed to purchase. The Representative, individually and not as the Representative of the Underwriters, may (but shall not be obligated to) make payment for any Shares to be purchased by any Underwriter whose funds shall not have been received by the Representative by the Closing Date or any Option Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

5. ***Covenants.***

(a) The Company covenants and agrees with the Underwriters as follows:

(i) The Company shall prepare the Final Prospectus in a form approved by the Representative and file such Final Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by the Rules and Regulations.

(ii) During the period beginning on the date hereof and ending on the later of the Closing Date or such date as determined by the Representative the Final Prospectus is no longer required by law to be delivered in connection with sales by an underwriter or dealer (the "Prospectus Delivery Period"), prior to amending or supplementing the Registration Statement, including any Rule 462 Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company shall furnish to the Representative for review and comment a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Representative reasonably objects.

(iii) From the date of this Agreement until the end of the Prospectus Delivery Period, the Company shall promptly advise the Representative in writing (A) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission, (B) of the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus, (C) of the time and date that any post-effective amendment to the Registration Statement becomes effective and (D) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending its use or the use of the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Stock from any securities exchange upon which it is listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time during the Prospectus Delivery Period, the Company will use its best efforts to obtain the lifting of such order at the earliest possible moment. Additionally, the Company agrees that it shall comply with the provisions of Rules 424(b), 430A or 430C as applicable, under the Securities Act and will use its best efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission (without reliance on Rule 424(b)(8) or 164(b) of the Securities Act).

(iv) (A) During the Prospectus Delivery Period, the Company will comply with all requirements imposed upon it by the Securities Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, and by the Exchange Act, as now and hereafter amended, so far as necessary to permit the continuance of sales of or dealings in the Shares as contemplated by the provisions hereof, the Time of Sale Disclosure Package, the Registration Statement and the Final Prospectus. If during the Prospectus Delivery Period any event occurs the result of which would cause the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary or appropriate in the opinion of the Company or its counsel or the Representative or counsel to the Underwriters to amend the Registration Statement or supplement the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to comply with the Securities Act, the Company will promptly notify the Representative, allow the Representative the opportunity to provide reasonable comments on such amendment, prospectus supplement or document, and will amend the Registration Statement or supplement the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(B) If at any time during the Prospectus Delivery Period there occurred or occurs an event or development the result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or any Prospectus or included or would include, when taken together with the Time of Sale Disclosure Package, an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(v) The Company shall take or cause to be taken all necessary action to qualify the Shares for sale under the securities laws of such jurisdictions as the Representative reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Shares, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified, to execute a general consent to service of process in any state or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise subject.

(vi) The Company will furnish to the Underwriters and counsel to the Underwriters copies of the Registration Statement, each Prospectus, any Issuer Free Writing Prospectus, and all amendments and supplements to such documents, in each case as soon as available and in such quantities as the Underwriters may from time to time reasonably request.

(vii) The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 of the Rules and Regulations.

(viii) The Company will pay or cause to be paid on the Closing Date (A) all expenses incurred in connection with the delivery to the Underwriters of the Shares (including all fees and expenses of the registrar and transfer agent of the Shares), (B) all reasonable expenses and reasonable fees (including, without limitation, fees and expenses of the Company's counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Securities, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, any Issuer Free Writing Prospectus and any amendment thereof or supplement thereto, (C) expenses incurred by the Representative in connection with the offering's settlement and closing in an amount not to exceed $12,900, (D) listing fees, if any, (E) a maximum of $150,000 for fees and expenses of the Representative's legal counsel and other out-of-pocket expenses, "road show" expenses and cost of background checks of the Company's officers, directors and other key employees, and (F) all other reasonable costs and reasonable expenses incident to the performance of the Company's obligations hereunder that are not otherwise specifically provided for herein. In addition, the Company will reimburse the Representative for reasonable costs incurred for the use of a third-party electronic road show service (such as NetRoadshow). Notwithstanding the foregoing, any amounts paid or payable under this Section 5(a)(viii) in no way limits or impairs the indemnification and contribution obligations set forth in Section 7 hereof. Any advance made by the Company to the Representative of the expenses set forth in this Section 5(a)(viii) shall be refundable to the Company to the extent not actually incurred in accordance with FINRA Rule 5110(g)(4)(A).

(ix) The Company intends to apply the net proceeds from the sale of the Shares to be sold by it hereunder for the purposes set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus under the heading "Use of Proceeds".

(x) The Company has not taken and will not take, directly or indirectly, during the Prospectus Delivery Period, any action designed to, or which might reasonably be expected to cause or result in, or that has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(xi) The Company represents and agrees that, unless it obtains the prior written consent of the Representative, and each Underwriter, severally, and not jointly, represents and agrees that, unless it obtains the prior written consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule IV. Any such free writing prospectus consented to by the Company and the Representative is hereinafter referred to as a

"Permitted Free Writing Prospectus." The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied or will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record-keeping.

(xii) The Company hereby agrees that, without the prior written consent of the Representative, it will not, during the period ending on the one-year anniversary of the Closing Date ("Lock-Up Period"), (i) offer, pledge, issue, sell, contract to sell, purchase, contract to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock; or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise; or (iii) file or caused to be filed any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or (iv) complete any offering of debt securities of the Company, other than entering into a line of credit with a traditional bank. The restrictions contained in the preceding sentence shall not apply to (1) the Shares to be sold hereunder, (2) the issuance of Common Stock upon the exercise of options or warrants or the conversion of outstanding preferred stock or other outstanding convertible securities disclosed as outstanding in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package, and the Final Prospectus, (3) the issuance of employee stock options not exercisable during the Lock-Up Period and the grant of restricted stock awards or restricted stock units or shares of Common Stock do not vest during the Lock-Up Period pursuant to equity incentive plans described in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package, and the Final Prospectus, and (4) the filing of a Registration Statement on Form S-8 or any successor form thereto.

(xiii) The Company hereby agrees, during a period of three (3) years from the effective date of the Registration Statement, to furnish to the Underwriter copies of all reports or other communications (financial or other) furnished to shareholders, and to deliver to the Underwriters as soon as reasonably practicable upon availability, copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed; provided, that any information or documents available on the Commission's Electronic Data Gathering, Analysis and Retrieval System shall be considered furnished for purposes of this Section 5(a)(xiv).

(xiv) The Company hereby agrees to engage and maintain, at its expense, a registrar and transfer agent for the Common Stock.

(xv) The Company hereby agrees to use its reasonable best efforts to obtain approval to list the Common Stock on Nasdaq and to maintain the listing thereof on Nasdaq.

(xvii) The Company hereby agrees not to take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, under the Exchange Act or otherwise, the stabilization or manipulation of the price of any securities of the Company to facilitate the sale or resale of the Shares.

(xviii) If the Company receives proceeds from the sale of Common Stock in any public or private offering or other financing or capital-raising transaction of any kind (a "Tail Financing") during the 12-month period following November 4, 2022 (the "Tail Term"), to the extent any such Tail Financing is provided to the Company, in whole or in part, by a Revere Contact, then the Company shall pay to the Revere Securities a cash fee, or as to an underwritten offering an underwriting discount, equal to 8.0% of the aggregate gross proceeds raised from such Revere Contact (and if a Tail Financing includes an over-allotment option or other additional investment component, 8.0% of the aggregate gross proceeds of such proportional number of shares of Common Stock attributable to Representative Contacts participating in such Tail Financing and sold pursuant to such over-allotment option or other investment component). "Revere Contact" means an investor whom Revere Securities has introduced to the Company during the period beginning on May 4, 2022 and ending on November 4, 2022 and such introduction (i) included verbal communication between the Company and the investor and (ii) was identified by date and person with whom the communication was made.

6. ***Conditions of the Underwriter's Obligations.*** The respective obligations of the several Underwriters hereunder to purchase the Shares are subject to the accuracy, as of the date hereof and at all times through the Closing Date, and on each Option Closing Date (as if made on the Closing Date or such Option Closing Date, as applicable), of and compliance with all representations, warranties and agreements of the Company contained herein, the performance by the Company of its obligations hereunder and the following additional conditions:

(a) If filing of the Final Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, is required under the Securities Act or the Rules and Regulations, the Company shall have filed the Final Prospectus (or such amendment or supplement) or such Issuer Free Writing Prospectus with the Commission in the manner and within the time period so required (without reliance on Rule 424(b)(8) or 164(b) under the Securities Act); the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Rule 462 Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened by the Commission; any request of the Commission or the Representative for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the satisfaction of the Representative.

(b) The Common Stock shall be approved for listing on Nasdaq, subject to official notice of issuance and satisfactory evidence thereof shall have been provided to the Representative and its counsel.

(c) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(d) The Representative shall not have reasonably determined, and advised the Company, that the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus, contains an untrue statement of fact which the Representative reasonably considers material, or omits to state a fact which the Representative reasonably considers material and is required to be stated therein or necessary to make the statements therein not misleading.

(e) On or after the date hereof (i) no downgrading shall have occurred in the rating accorded any of the Company's securities by any "nationally recognized statistical organization," as that term is defined by the Commission for purposes of Rule 436(g)(2) under the Securities Act, and (ii) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's securities.

(f) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Representative on behalf of the Underwriters the opinion and negative assurance letters of Carmel, Milazzo & Feil LLP, counsel to the Company, each dated the Closing Date or the Option Closing Date, as applicable, and each addressed to the Underwriters, each in form and substance reasonably satisfactory to the Representative, to the effect set forth in **Exhibit C**.

(g) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Underwriters the negative assurance letter of DLA Piper LLP (US), counsel to the Underwriters, dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Underwriters, in form and substance reasonably satisfactory to Representative.

(h) The Underwriters shall have received a letter of EisnerAmper LLP, on the date hereof and on the Closing Date and on each Option Closing Date, addressed to the Underwriters, confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, and confirming, as of the date of each such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm with respect to the financial information and other matters required by the Underwriters.

(i) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Underwriters a certificate, dated the Closing Date and on each Option Closing Date and addressed to the Underwriters, signed by the chief executive officer and the chief financial officer of the Company, in their capacity as officers of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement that are qualified by materiality or by reference to any Material Adverse Effect are true and correct in all respects, and all other representations and warranties of the Company in this Agreement are true and correct, in all material respects, as if made at and as of the Closing Date and on the Option Closing Date, and the Company has complied in all material respects with all the agreements and satisfied all the conditions on its part required to be performed or satisfied at or prior to the Closing Date or on the Option Closing Date, as applicable;

(ii) No stop order or other order (A) suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof, (B) suspending the qualification of the Shares for offering or sale, or (C) suspending or preventing the use of the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to their knowledge, is contemplated by the Commission or any state or regulatory body; and

(iii) There has been no occurrence of any event resulting or reasonably likely to result in a Material Adverse Effect during the period from and after the date of this Agreement and prior to the Closing Date or on the Option Closing Date, as applicable.

(j) On or before the date hereof, the Representative shall have received duly executed lock-up agreement (each a 'Lock-Up Agreement") in the form set forth on **Exhibit A** hereto, by and between the Representative and each of the parties specified in Schedule V.

If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in the Lock-Up Agreement for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of **Exhibit B** hereto through a major news service at least two business days before the effective date of the release or waiver.

(k) On the Closing Date, the Representative shall have received a copy of the Warrant Agreement duly executed and delivered by each of the Company and the Warrant Agent.

(l) The Company shall have furnished to the Representative and its counsel such additional documents, certificates and evidence as the Representative and its counsel may have reasonably requested.

If any condition specified in this Section 6 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Representative by notice to the Company at any time at or prior to the Closing Date or on the Option Closing Date, as applicable, and such termination shall be without liability of any party to any other party, except that Section 5(a)(viii), Section 5(a)(xviii), Section 5(a)(xix), Section 7 and Section 8 shall survive any such termination and remain in full force and effect.

7. ***Indemnification and Contribution***.

(a) The Company agrees to indemnify, defend and hold harmless each Underwriter, its affiliates, and the respective controlling persons, directors, officers, members and shareholders of any of the forgoing and employees, and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, actions, suits, proceedings (including those of shareholders), damages, liabilities, and expenses (including the reasonable and documented fees and expenses of counsel), to which such Underwriter or such person may become subject, under the Securities Act or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon (i) an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Rules and Regulations, or arise out of or are based upon the omission from the Registration Statement, or alleged omission to state therein, a material fact required to be stated therein or necessary to make the statements therein not misleading (ii) an untrue statement or alleged untrue statement of a material fact contained in the Time of Sale Disclosure Package, any Written Testing-the-Waters Communications, any Prospectus, the Final Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus, or the Marketing Materials or in any other materials used in connection with the offering of the Shares, or arise out of or are based upon the omission or alleged omission to state therein, in light of the circumstances under which they were made, a material fact required to be stated therein or necessary to make the statements therein not misleading, (iii) in whole or in part, any inaccuracy in the representations and warranties of the Company contained herein, or (iv) in whole or in part, any failure of the Company to perform its obligations hereunder or under law, and will reimburse each Underwriter for any legal or other expenses reasonably incurred by it in connection with evaluating, investigating or defending against such loss, claim, damage, liability or action; *provided, however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Time of Sale Disclosure Package, any Written Testing-the-Waters Communications, any Prospectus, the Final Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus, in reliance upon and in conformity with written information furnished to the Company by such Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(g).

(b) Each Underwriter, severally and not jointly, will indemnify, defend and hold harmless the Company, its directors and each officer of the Company who signs the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which such party may become subject, under the Securities Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus in reliance upon and in conformity with written information

furnished to the Company by such Underwriter specifically for use in the preparation thereof, which written information is described in Section 7(g), and will reimburse such party for any legal or other expenses reasonably incurred by such party in connection with evaluating, investigating, and defending against any such loss, claim, damage, liability or action. The obligation of each Underwriter to indemnify the Company (including any controlling person, director or officer thereof) shall be limited to the amount of the underwriting discount applicable to the Shares to be purchased by such Underwriter hereunder actually received by such Underwriter.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the failure to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof; *provided*, *however*, that if (i) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (ii) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party), or (iii) the indemnifying party has not in fact employed counsel reasonably satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, the indemnified party shall have the right to employ counsel to represent it in any claim in respect of which indemnity may be sought under subsection (a) or (b) of this Section 7, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the indemnified party as incurred.

(d) The indemnifying party under this Section 7 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is a party or could be named and indemnity was or would be sought hereunder by such indemnified party, unless such settlement, compromise or consent (a) includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such action, suit or proceeding and (b) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(e) If the indemnification provided for in this Section 7 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering and sale of the Shares or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discount received by the Underwriters, in each case as set forth in the table on the cover page of the Final Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the first sentence of this subsection (d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim that is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount of the of the underwriting discount applicable to the Shares to be purchased by such Underwriter hereunder actually received by such Underwriter. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' respective obligations to contribute as provided in this Section 7 are several in proportion to their respective underwriting commitments and not joint.

(f) The obligations of the Company under this Section 7 shall be in addition to any liability that the Company may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act; and the obligations of each Underwriter under this Section 7 shall be in addition to any liability that each Underwriter may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to the Company and its officers, directors and each person who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act.

(g) For purposes of this Agreement, each Underwriter severally confirms, and the Company acknowledges, that there is no information concerning such Underwriter furnished in writing to the Company by such Underwriter specifically for preparation of or inclusion in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus, other than the statement set forth in the last paragraph on the cover page of the Prospectus, the marketing and legal names of each Underwriter, and the statements set forth in the "Underwriting" section of the Registration Statement, the Time of Sale Disclosure Package, and the Final Prospectus only insofar as such statements relate to the amount of selling concession and re-allowance, if any, or to over-allotment, stabilization and related activities that may be undertaken by such Underwriter.

8. ***Representations and Agreements to Survive Delivery***. All representations, warranties, and agreements of the Company contained herein or in certificates delivered pursuant hereto, including, but not limited to, the agreements of the several Underwriters and the Company contained in Section 5(a)(viii), Section 5(a)(xviii), Section 5(a)(xix) and Section 7 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the several Underwriters or any controlling person thereof, or the Company or any of its officers, directors, or controlling persons, and shall survive delivery of, and payment for, the Shares to and by the Underwriters hereunder.

9. ***Termination of this Agreement***.

(a) The Representative shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the Closing Date or any Option Closing Date (as to the Option Shares to be purchased on such Option Closing Date only), if in the discretion of the Representative, (i) there has occurred any material adverse change in the securities markets or any event, act or occurrence that has materially disrupted, or in the opinion of the Representative, will in the

future materially disrupt, the securities markets or there shall be such a material adverse change in general financial, political or economic conditions or the effect of international conditions on the financial markets in the United States is such as to make it, in the judgment of the Representative, inadvisable or impracticable to market the Securities or enforce contracts for the sale of the Shares (ii) trading in the Company's Common Stock shall have been suspended by the Commission or Nasdaq or trading in securities generally on the Nasdaq Stock Market, the NYSE or NYSE American shall have been suspended, (iii) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the Nasdaq Stock Market, the NYSE or the NYSE American, by such exchange or by order of the Commission or any other governmental authority having jurisdiction, (iv) a banking moratorium shall have been declared by federal or state authorities, (v) there shall have occurred any attack on, outbreak or escalation of hostilities or act of terrorism involving the United States, any declaration by the United States of a national emergency or war, any substantial change or development involving a prospective substantial change in the United States or international political, financial or economic conditions or any other calamity or crisis, or (vi) the Company suffers any loss by strike, fire, flood, earthquake, accident or other calamity, whether or not covered by insurance, or (vii) in the judgment of the Representative, there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiaries considered as a whole, whether or not arising in the ordinary course of business. Any such termination shall be without liability of any party to any other party except that the provisions of Section 5(a)(viii), Section 5(a)(xviii), Section 5(a)(xix) and Section 7 hereof shall at all times be effective and shall survive such termination.

(b) If the Representative elects to terminate this Agreement as provided in this Section 9, the Company and the other Underwriters shall be notified promptly by the Representative by telephone, confirmed by letter.

10. ***Notices***. Except as otherwise provided herein, all communications hereunder shall be in writing and, if to the Representative of the Underwriters, shall be mailed, delivered or telecopied to the parties as follows:

if to the Representative:

Revere Securities LLC
650 Fifth Avenue, 35th Floor
New York, NY 10019
Telecopy number:
Attention: Managing Director

with copies (which shall not constitute notice) to:

DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, California 92121
Attention: Donald G. Ainscow, Esq.

if to the Company:

ASP Isotopes Inc.
433 Plaza Real, Ste 275
Boca Raton, FL 33432
Telecopy number: +44 7810 326 009
Attention: Chief Executive Officer, Paul Mann

with copies to:

Carmel, Milazzo & Feil LLP
55 West 39th Street, 18th Floor
New York, NY 10018
Telecopy number: (212) 658-0458
Attention: Ross Carmel, Esq.
Jefferey Wofford, Esq.

or in each case to such other address as the person to be notified may have requested in writing. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

11. ***Persons Entitled to Benefit of Agreement***. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 7. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term "successors and assigns" as herein used shall not include any purchaser, as such purchaser, of any of the Shares from any Underwriters.

12. ***Absence of Fiduciary Relationship***. The Company acknowledges and agrees that: (a) each Underwriter has been retained solely to act as underwriter in connection with the sale of the Shares and that no fiduciary, advisory or agency relationship between the Company and any Underwriter has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Underwriter has advised or is advising the Company on other matters; (b) the price and other terms of the Shares set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriters and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriters and their affiliates are engaged in a broad range of transactions that may involve interests that differ from those of the Company and that no Underwriter has any obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and (d) it has been advised that each Underwriter is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of such Underwriter and not on behalf of the Company.

13. ***Amendments and Waivers***. No supplement, modification or waiver of this Agreement shall be binding unless executed in writing by the party to be bound thereby. The failure of a party to exercise any right or remedy shall not be deemed or constitute a waiver of such right or remedy in the future. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (regardless of whether similar), nor shall any such waiver be deemed or constitute a continuing waiver unless otherwise expressly provided.

14. ***Partial Unenforceability***. The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision.

15. ***Governing Law***. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

16. ***Submission to Jurisdiction***. The Company irrevocably (a) submits to the jurisdiction of the Supreme Court of the State of New York, Borough of Manhattan or the United States District Court for the Southern District of New York for the purpose of any suit, action, or other proceeding arising out of this Agreement, or any of the agreements or transactions contemplated by this Agreement, the Registration Statement, the Time of Sale Disclosure Package, any Prospectus and the Final Prospectus (each a "Proceeding"), (b) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (c) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (d) agrees not to commence any Proceeding other than in such courts, and (e) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum. EACH OF THE COMPANY (ON BEHALF OF ITSELF AND, TO THE FULLEST EXTENT PERMITTED BY LAW, ON BEHALF OF ITS RESPECTIVE EQUITY HOLDERS AND CREDITORS) AND EACH UNDERWRITER HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED UPON, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, THE REGISTRATION STATEMENT, THE TIME OF SALE DISCLOSURE PACKAGE, ANY PROSPECTUS AND THE FINAL PROSPECTUS.

17. ***Counterparts.*** This Agreement may be executed and delivered (including by facsimile transmission or electronic mail) in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

[*Signature Page Follows*]

Please sign and return to the Company the enclosed duplicates of this letter whereupon this letter will become a binding agreement between the Company and the several Underwriters in accordance with its terms.

Very truly yours,

ASP ISOTOPES INC.

By: ____________________
Name: Paul Mann
Title: Chief Executive Officer

Confirmed as of the date first above-mentioned
by the Representative.

REVERE SECURITIES LLC

By: ____________________
Name: ____________________
Title: ____________________

[Signature page to Underwriting Agreement]

SCHEDULE I

Name	Number of Firm Shares to be Purchased	Number of Option Shares to be Purchased
REVERE SECURITIES LLC	**[●]**	**[●]**

SCHEDULE II

Final Term Sheet

Issuer:	ASP Isotopes Inc. (the "Company")
Symbol:	ASPI
Securities:	**[●]** shares of common stock, par value $0.01 per share ("Common Stock"), of the Company.
Over-allotment Option	Up to **[●]** additional shares of Common Stock, representing 15% of the Firm Units sold in the offering from the Company.
Public offering price:	$**[●]** per Firm Share
Underwriting discount:	$**[●]** per Firm Share
Expected net proceeds:	Approximately $**[●]** million ($**[●]** if the overallotment option is exercised in full) (after deducting the underwriting discount and estimated offering expenses payable by the Company).

Trade date: _________, 2022

Settlement date: _________, 2022

Representative: Revere Securities LLC

SCHEDULE III

Free Writing Prospectus

None.

SCHEDULE IV

Written Testing-the-Waters Communications

SCHEDULE V

List of officers, directors and shareholders executing lock-up agreements

EXHIBIT A

Form of Lock-Up Agreement

Revere Securities LLC
650 Fifth Avenue, 35th Floor
New York, NY 10019

Ladies and Gentlemen:

The undersigned, a stockholder of ASP Isotopes Inc., a Delaware corporation (the "Company"), understands that Revere Securities LLC, as the representative of the several underwriters named therein (the "Representative"), proposes to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company relating to the proposed initial public offering (the "Offering") of the Company's common stock, par value $0.01 per share (the "Common Stock").

In recognition of the benefit that the Offering will confer upon the undersigned, and in order to induce you to participate the Offering, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby agrees that, without the prior written consent of the Representative (which consent may be withheld in its sole discretion), the undersigned will not, during the period beginning on the date hereof and ending on the date 180 days after the date of the final prospectus relating to the Offering (the "Lock-Up Period"), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, or file (or participate in the filing of) a registration statement with the Securities and Exchange Commission in respect of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock (including without limitation, shares of Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission and securities which may be issued upon exercise of a stock option or warrant) (collectively, the "Lock-Up Securities"), (2) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, any of the economic consequences of ownership of the Lock-Up Securities, whether any such swap or transaction described in clause (1) or (2) above is to be settled by delivery of the Lock-Up Securities or such other securities, in cash or otherwise, (3) make any demand for or exercise any right with respect to, the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for shares of Common Stock, or (4) publicly announce an intention to effect any transaction described in clause (1), (2) or (3) above.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer the Lock- Up Securities without the prior written consent of the Representative as follows, provided that (1) the Representative receives a signed lock-up agreement for the balance of the Lock-Up Period from each donee, trustee or transferee, as the case may be, (2) any such transfer shall not involve a disposition for value, (3) such transfers are not required to be reported in any public report or filing with the Securities and Exchange Commission, or otherwise and (4) the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfers:

(i) as a bona fide gift or gifts (including but not limited to charitable gifts), or

(ii) to any member of the immediate family of the undersigned or to a trust or other entity for the direct or indirect benefit of, or wholly-owned by, the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin); or

(iii) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (1) transfers to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Common Stock Act of 1933, as amended) of the undersigned or (2) distributions of common stock or any security convertible into or exercisable for common stock to limited partners, limited liability company members or stockholders of the undersigned; or

(iv) if the undersigned is a trust, transfers to the beneficiary of such trust; or

(v) by will, other testamentary document or intestate succession; or

(vi) by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement.

Furthermore, no provision in this letter shall be deemed to restrict or prohibit (1) transactions relating to Common Stock purchased in the Offering or acquired in open market transactions after the completion of Offering; and (2) the exercise or exchange by the undersigned of any option or warrant to acquire any common stock or options to purchase common stock, in each case for cash or on a "cashless" or "net exercise" basis, pursuant to any share option, share bonus or other share plan or arrangement; provided, however, that the underlying common stock shall continue to be subject to the restrictions on transfer set forth in this letter.

The undersigned further agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this lock-up agreement during the Lock-Up Period, it will give written notice thereof to the Representative and will not consummate such transaction or take any such action unless it has received written confirmation from the Company that the Lock-Up Period has expired.

The foregoing restrictions are expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or reasonably expected to lead to or result in a sale or disposition of shares of Common Stock even if such securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put option or put equivalent position or call option or call equivalent position) with respect to any of the shares of Common Stock or with respect to any security that includes, relates to, or derives any significant part of its value from such shares.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's shares of Common Stock except in compliance with the foregoing restrictions.

The undersigned, whether or not participating in the Offering, understands that the Representative is proceeding with the Offering in reliance upon this lock-up agreement.

If the undersigned is an officer or director of the Company, (i) the Representative agrees that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of Common Shares, the Representative will notify the Company of the impending release or waiver, and (ii) the Company will agree in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by the Representative hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this Lock-Up Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer.

The undersigned understands that, if (1) prior to the execution of the Underwriting Agreement, the Company files an application to withdraw the Registration Statement related to the Offering, (2) the Underwriting Agreement does not become effective by December 31, 2022, (3) the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Common Stock to be sold thereunder, or (4) the Representative on behalf of the Underwriter advises the Company, or the Company advises the Representative, in writing, prior to the execution of the Underwriting Agreement, that they have determined not to proceed with the Offering, the undersigned shall be released from all obligations under this Lock-Up Agreement.

This Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof. The undersigned irrevocably (i) submits to the jurisdiction of the Supreme Court of the State of New York, Borough of Manhattan and the United States District Court for the Southern District of New York, for the purpose of any suit, action, or other proceeding arising out of this Lock-Up Agreement (each a "Proceeding"), (ii) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (iii) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (iv) agrees not to commence any Proceeding other than in such courts, and (v) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum.

Very truly yours,

____
(Name - *Please Print*)

____
(*Signature*)

EXHIBIT B

Form of Press Release

ASP Isotopes Inc.

[Date **[●]**]

ASP Isotopes Inc., a Delaware corporation (the "Company"), announced today that Revere Securities LLC, the Representative in the Company's recent public sale of shares of common stock are [waiving][releasing] a lock-up restriction with respect to shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver][release] will take effect on **[●]**, 2022, and the shares may be sold on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

EXHIBIT C

Company Counsel Opinion

Exhibit 3.3

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
ASP ISOTOPES INC.
a Delaware corporation

(**Pursuant to Sections 242 and 245 of the**
General Corporation Law of the State of Delaware)

ASP Isotopes Inc. (the "***Corporation***"), a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "***DGCL***"),

DOES HEREBY CERTIFY:

1. That the name of this Corporation is ASP Isotopes Inc., which was originally incorporated pursuant to the DGCL on September 13, 2021 under the name ASP Isotopes Inc.

2. The Amended and Restated Certificate of Incorporation of this Corporation attached hereto as Exhibit A, which is incorporated herein by this reference, and which restates, integrates and further amends the provisions of the Certificate of Incorporation of this Corporation, as previously amended, has been duly adopted by this Corporation's Board of Directors and by the stockholders in accordance with Sections 242 and 245 of the DGCL, with the approval of this Corporation's stockholders having been given by written consent without a meeting in accordance with Section 228 of the DGCL.

IN WITNESS WHEREOF, this Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by its duly authorized officer and the foregoing facts stated herein are true and correct.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this Corporation on this th day of October, 2022.

By: ______________________
Name: Paul Mann
Title: Chief Executive Officer

[Signature Page to Amended and Restated Certificate of Incorporation]

EXHIBIT A

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
ASP ISOTOPES INC.
a Delaware corporation

ARTICLE I

The name of the corporation is ASP Isotopes Inc. (hereinafter referred to as the "***Corporation***").

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 251 Little Falls Drive, in the City of Wilmington, County of New Castle, Delaware 19808. The name of the Corporation's registered agent at such address is Corporation Service Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware (the "***DGCL***") and to possess and employ all powers and privileges now or hereafter granted or available under the laws of the State of Delaware to such corporations.

ARTICLE IV

A. The total number of shares of capital stock of all classes that the Corporation shall have authority to issue is 510,000,000 shares, consisting of: 500,000,000 shares of common stock, $0.01 par value per share ("***Common Stock***"), and 10,000,000 shares of preferred stock, par value $0.01 per share ("***Preferred Stock***").

B. Except as otherwise restricted by this Amended and Restated Certificate of Incorporation (this "***Certificate***"), the Corporation is authorized to issue, from time to time, all or any portion of the capital stock of the Corporation which may have been authorized but not issued, to such person or persons and for such lawful consideration as it may deem appropriate, and generally in its absolute discretion to determine the terms and manner of any disposition of such authorized but unissued capital stock. Any and all

such shares issued for which the full consideration has been paid or delivered shall be deemed fully paid shares of capital stock, and the holder of such shares shall not be liable for any further call or assessment or any other payment thereon.

C. The designations and the powers, preferences and rights and qualifications, limitations or restrictions of the shares of each class of stock are as follows:

1. Common Stock

(a) General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to the rights of the holders of any series of Preferred Stock then outstanding.

(b) Voting. Except as otherwise provided herein, the holders of the Common Stock are entitled to one (1) vote for each share of Common Stock held at all meetings of stockholders; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Certificate or pursuant to the DGCL. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required, if any Preferred Stock is then outstanding) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the DGCL.

2. Preferred Stock. The shares of Preferred Stock shall initially be undesignated and may be issued from time to time in one or more additional series by the Board of Directors. The Board of Directors is hereby authorized, subject to any limitations prescribed by law, to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon a wholly-unissued series of Preferred Stock, and the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares of any series subsequent to the issue of shares of that series, but, in respect of decreases, not below the number of shares of such series then outstanding. In case the number of shares of any series should be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolutions originally fixing the number of shares of such series. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the outstanding shares of Common Stock without a vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the certificate or certificates establishing any series of Preferred Stock.

ARTICLE V

The Corporation is to have perpetual existence.

ARTICLE VI

The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

A. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred upon them by law or by this Certificate or the bylaws of the Corporation, as the same may be amended from time to time (the "***Bylaws***"), the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

B. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

C. Subject to the rights of the holders of any series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

D. Subject to the rights of the holders of any series of Preferred Stock then outstanding, special meetings of stockholders of the Corporation may be called only by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption), the Chairperson of the Board or the Chief Executive Officer.

E. The number of directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption). Beginning immediately following the consummation of the Corporation's initial public offering of its Common Stock pursuant to an effective registration statement under the Securities Act of 1933, as amended, (the "***Initial Public Offering***"), the directors shall, by resolution of the Board of Directors, be divided into three classes, hereby designated Class I, Class II and Class III. The term of office of the initial Class I directors shall expire at the first annual meeting of stockholders of the Corporation following the Initial Public Offering, the term of office of the initial Class II directors shall expire at the second annual meeting of stockholders of the Corporation following the Initial Public Offering, and the term of office of the initial Class III directors shall expire at the third annual meeting of stockholders of the Corporation following the Initial Public Offering. At each annual meeting of stockholders of the Corporation following the Initial Public Offering, directors elected to replace those of a Class whose terms expire at such annual meeting shall be elected for a term expiring at the third succeeding annual meeting of stockholders of the Corporation after such election. All directors shall hold office until the expiration of the term for which elected, and until their respective successors have been duly elected and qualified, except in the case of the death, resignation, or removal of any director. Nothing in this Certificate shall preclude a director from serving consecutive terms.

F. Subject to the rights of the holders of any series of Preferred Stock then outstanding, (i) newly created directorships resulting from any increase in the authorized number of directors and (ii) any vacancies in the Board of Directors resulting from death, resignation, disqualification, removal from office, or other cause may be filled only by the Board of Directors (and not by stockholders), provided that a quorum is then in office and present, or by a majority of the directors then in office, if less than a quorum is then in office, or by the sole remaining director. A director elected to fill a vacancy shall be elected for the unexpired term of such director's predecessor in office and until such director's successor is duly elected and qualified, or until such director's earlier death, resignation, or removal. After the Initial Public Offering, a director chosen to fill a position resulting from an increase in the number of directors shall hold office until the next election of the class for which such director shall have been chosen, and until such director's successor is duly elected and qualified, or until such director's earlier death, resignation, or removal. No decrease in the authorized number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

G. Subject to the rights of the holders of any series of Preferred Stock then outstanding, and notwithstanding any other provision of this Certificate, directors may be

removed from office only for cause and only by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Vacancies in the Board of Directors resulting from such removal shall be filled as set forth above under Article VI, Part F.

H. Subject to the rights of holders of any series of Preferred Stock, advance notice of stockholder nominations for election of directors and of business to be brought by stockholders before any meeting of stockholders of the Corporation shall be given in the manner provided by the Bylaws of the Corporation.

ARTICLE VII

No director shall be personally liable to the Corporation or its stockholders for monetary damages for breach of such director's fiduciary duty as a director of the Corporation, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for any acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit. If the DGCL hereafter is amended to authorize further elimination or limitation of the liability of directors, then the liability of a director of the Corporation, in addition to the limitation on personal liability provided herein, shall be limited to the fullest extent permitted by the amended DGCL. Any repeal or modification of this paragraph by the stockholders of the Corporation shall be prospective only and shall not adversely affect any limitation on the personal liability of a director of the Corporation existing at the time of such repeal or modification.

The Corporation shall indemnify any director or officer to the fullest extent permitted by Delaware law.

ARTICLE VIII

All of the powers of the Corporation, insofar as the same may be lawfully vested by this Certificate in the Board of Directors, are hereby conferred upon the Board of Directors.

ARTICLE IX

The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws. Any adoption, amendment or repeal of the Bylaws by the Board of Directors shall require the approval of a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the Board of Directors). The stockholders shall also have power to adopt, amend or repeal the Bylaws. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any adoption, amendment or repeal of Bylaws by the stockholders shall require, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE X

The Corporation reserves the right to amend or repeal any provision contained in this Certificate in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation; provided, that, notwithstanding any other provision of this Certificate or any provision of law which might otherwise permit a lesser vote or no vote, but subject to the rights of the holders of any series of Preferred Stock then outstanding and in addition to any vote of the holders of any class or series of the stock of this Corporation required by law or by this Certificate, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal, or adopt any provision of this Certificate inconsistent with, Article VI, Article VII, Article VIII, this Article X or Article XII.

ARTICLE XI

If any provision of this Certificate becomes or is declared on any ground by a court of competent jurisdiction to be illegal, unenforceable or void, portions of such provision, or such provision in its entirety, to the extent necessary, shall be severed from this Certificate, and the court will replace such illegal, void or unenforceable provision of this Certificate with a valid and enforceable provision that most accurately reflects the Corporation's intent, in order to achieve, to the maximum extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Certificate shall be enforceable in accordance with its terms.

ARTICLE XII

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, employee, agent or stockholder of the Corporation to the Corporation or the Corporation's stockholders, (c) any action asserting a claim arising pursuant to any provision of the DGCL, this Certificate or the Bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (d) any action asserting a claim governed by the internal affairs doctrine, in each such case subject to such Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. In addition, unless the Corporation consents in writing to the selection of an alternative forum, the U.S. federal district courts shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended. Notwithstanding anything herein to the contrary, this Article XII shall not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), or the rules and regulations under the Exchange Act, or any other claim for which the U.S. federal courts have exclusive jurisdiction. To the fullest extent permitted by applicable law, any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article XII.

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Exhibit 3.4

AMENDED AND RESTATED BYLAWS

OF

ASP ISOTOPES INC.

Effective as of October __, 2022

ARTICLE I
CORPORATE OFFICES

1.1 Registered Office. The address of the registered office of ASP Isotopes Inc. (the "***Corporation***") in the State of Delaware, and the name of its registered agent at such address, shall be as set forth in the Corporation's certificate of incorporation, as the same may be amended and/or restated from time to time (the "***Certificate of Incorporation***")

1.2 Other Offices. The Corporation may have an office or offices other than its registered office at such place or places, either within or outside the State of Delaware, as the Board of Directors of the Corporation (the "***Board***") may from time to time determine or the business of the Corporation may require.

ARTICLE II
STOCKHOLDERS

2.1 Place of Meetings. All meetings of stockholders shall be held at such place (if any) within or without the State of Delaware as may be determined from time to time by the Board or, if not determined by the Board, by the Chairperson of the Board, the President or the Chief Executive Officer; provided that the Board may, in its sole discretion, determine that any meeting of stockholders shall not be held at any place but shall be held solely by means of remote communication in accordance with Section 2.13.

2.2 Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date to be fixed by the Board at a time to be fixed by the Board and stated in the notice of the meeting.

2.3 Special Meetings. Subject to the Certificate of Incorporation, the rights of the holders of any series of preferred stock then outstanding and to the requirements of applicable law, special meetings of the stockholders of the Corporation may be called only by the Board acting pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption), the Chairperson of the Board, or the Chief Executive Officer and may not be called by any other person or persons. Any business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of the meeting.

2.4 Notice of Meetings.

(a) Written notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting as of the record date fixed by the Board for determining the stockholders entitled to notice of the meeting, except as otherwise provided herein or required by the General Corporation Law of the State of Delaware (the "***DGCL***") or the Certificate of Incorporation. The notice of any meeting shall state the place, if any, date and hour of the meeting, and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called.

(b) Notice to stockholders shall be delivered in writing or in any other manner permitted by the DGCL. If mailed, such notice shall be delivered by postage prepaid envelope directed to each stockholder at such stockholder's address as it appears in the records of the Corporation and shall be deemed given when deposited in the United States mail. Without limiting the manner by which notices of meetings otherwise may be given effectively to stockholders, any such notice may be given by electronic transmission in the manner provided in Section 232 of the DGCL. An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the Corporation that the notice has been given by personal delivery, by mail, or by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

(c) Notice of any meeting of stockholders need not be given to any stockholder if waived by such stockholder either in a writing signed by such stockholder or by electronic transmission, whether such waiver is given before or after such meeting is held. If such a waiver is given by electronic transmission, the electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder.

2.5 Voting List. The officer who has charge of the stock ledger of the Corporation shall prepare, at least 10 days before each meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date, arranged in alphabetical order for each class of stock and showing the mailing address of each stockholder and the number of shares registered in the name of each stockholder. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, (b) during ordinary business hours at the principal place of business of the Corporation or (c) in any other manner provided by law. If the meeting is to be held at a place, the list shall be produced and kept at the time and place of the meeting during the whole time of the meeting, and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, such list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. The stock ledger shall be the only evidence as to the stockholders who are entitled to examine the list required by this Section 2.5 or to vote in person or by proxy at any meeting of stockholders.

2.6 Quorum. Except as otherwise provided by law or these Bylaws, the holders of a majority of the shares of the capital stock of the Corporation entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business. Where a separate class vote by a class or classes or series is required, a majority of the shares of such class or classes or series present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter.

2.7 Adjournments. Any meeting of stockholders may be adjourned to any other time and to any other place at which a meeting of stockholders may be held under these Bylaws by the chairperson of the meeting or, in the absence of such person, by any officer entitled to preside at or to act as secretary of such meeting, or by the holders of a majority of the shares of stock present or represented at the meeting and entitled to vote, although less than a quorum. When a meeting is adjourned to another place, date or time, written notice need not be given of the adjourned meeting if the date, time and place, if any, thereof, and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than 30 days after the date for which the meeting was originally noticed, or if the Board fixes a new record date for determining the stockholders entitled to vote at the adjourned meeting in accordance with Section 5.5, written notice of the place, if any, date and time of the adjourned meeting and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, shall be given in conformity herewith. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting.

2.8 Voting and Proxies. Each stockholder shall have one vote for each share of stock entitled to vote held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided by law or in the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders may vote in person or may authorize any other person or persons to vote or act for such stockholder by a written proxy executed by the stockholder or the stockholder's authorized agent or by an electronic transmission permitted by law and delivered to the Secretary of the Corporation. Any copy, facsimile transmission or other reliable reproduction of the writing or electronic transmission created pursuant to this section may be substituted or used in lieu of the original writing or electronic transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile transmission or other reproduction shall be a complete reproduction of the entire original writing or electronic transmission.

2.9 Action at Meeting.

(a) At any meeting of stockholders for the election of one or more directors at which a quorum is present, the election shall be determined by a plurality of the votes cast by the stockholders entitled to vote at the election.

(b) All other matters shall be determined by a majority in voting power of the shares present in person or represented by proxy and entitled to vote on the matter (or if there are two or more classes of stock entitled to vote as separate classes, then in the case of each such class, a majority of the shares of each such class present in person or represented by proxy and entitled to vote on the matter shall decide such matter), provided that a quorum is present, except when a different vote is required by express provision of law, the Certificate of Incorporation or these Bylaws.

(c) All voting, including on the election of directors, but excepting where otherwise required by law, may be by a voice vote; provided, that upon demand therefor by a stockholder entitled to vote or the stockholder's proxy, a vote by ballot shall be taken. Each ballot shall state the name of the stockholder or proxy voting and such other information as may be required under the procedure established for the meeting. The Corporation may, and to the extent required by law, shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as an alternate inspector to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting may, and to the extent required by law, shall, appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath to faithfully execute the duties of inspector with strict impartiality and according to the best of his ability.

2.10 Stockholder Business (Other Than the Election of Directors).

(a) Only such business (other than nominations for election of directors, which is governed by Section 3.16 of these Bylaws) shall be conducted as shall have been properly brought before an annual meeting. To be properly brought before an annual meeting, business must be either (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board, (ii) otherwise properly brought before the meeting by or at the direction of the Board, or (iii) otherwise properly brought before the meeting by a stockholder who (A) is a stockholder of record (and, with respect to any beneficial owner, if different, on whose behalf such business is proposed, only if such beneficial owner is the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.10 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with the notice procedures set forth in this Section 2.10 as to such business. For any business to be properly brought before an annual meeting by a stockholder (other than nominations for election of directors, which is governed by Section 3.16 of these Bylaws), it must be a proper matter for stockholder action under the DGCL, and the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation. To be timely, a stockholder's notice shall be in writing and must be received at the Corporation's principal executive offices not later than ninety (90) days nor earlier than one hundred twenty (120) days prior to the first anniversary of the date of the preceding year's annual meeting as first specified in the Corporation's notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting is advanced by more than thirty (30) days, or delayed (other than as a result of adjournment) by more than thirty (30) days from the anniversary of the previous year's annual meeting, notice by the stockholder to be timely must be received not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the date on which public announcement of the date of such meeting is first made. "***Public announcement***" for purposes hereof shall have the meaning set forth in Section 3.16(c) of these Bylaws. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. For business to be properly brought before a special meeting by a stockholder, the business must be limited to the purpose or purposes set forth in a request under Section 2.3.

(b) A stockholder's notice to the Secretary of the Corporation shall set forth (i) as to each matter the stockholder proposes to bring before the annual meeting, a brief description of the business desired to be brought before the annual meeting and the text of the proposal or business, including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws of the Corporation, the language of the proposed amendment, and (ii) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is being made, and any of their respective affiliates or associates (each within the meaning of Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***")) or others acting in concert therewith (each, a "***Proposing Person***"), (A) the name and address, as they appear on the Corporation's books, of the stockholder proposing such business and of any other Proposing Person, (B) the class or series and number of shares of the Corporation which are owned beneficially and of record by the stockholder and any other Proposing Person as of the date of the notice, and a representation that the stockholder will notify the Corporation in writing within five (5) business days after the record date for voting at the meeting of the class or series and number of shares of the Corporation owned beneficially and of record by the stockholder and any other Proposing Person as of the record date for voting at the meeting, (C) a representation that the stockholder intends to appear in person or by proxy at the meeting to propose the business specified in the notice, (D) any material interest of the stockholder and any other Proposing Person in such business, (E) the following information regarding the ownership interests of the stockholder and any other Proposing Person which shall be supplemented in writing by the stockholder not later than ten (10) days after the record date for voting at the meeting to disclose such interests as of such record date: (1) a description of any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived in whole or in part from the value of any class or series of shares of the Corporation, any derivative or synthetic arrangement having the characteristics of a long position in any class or series of shares of the Corporation, or any contract, derivative, swap or other transaction or series of transactions designed to produce economic benefits and risks that correspond substantially to the ownership of any class or series of shares of the Corporation, including due to the fact that the value of such contract, derivative, swap or other transaction or series of transactions is determined by

reference to the price, value or volatility of any class or series of shares of the Corporation, whether or not such instrument, contract or right shall be subject to settlement in the underlying class or series of shares of the Corporation, through the delivery of cash or other property, or otherwise, and without regard to whether the stockholder of record or any other Proposing Person may have entered into transactions that hedge or mitigate the economic effect of such instrument, contract or right (a "***Derivative Instrument***") directly or indirectly owned beneficially by such stockholder or other Proposing Person, and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation; (2) a description of any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder or other Proposing Person has a right to vote any shares of any security of the Corporation; (3) a description of any agreement, arrangement, understanding, relationship or otherwise, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, engaged in, directly or indirectly, by such stockholder or other Proposing Person, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of any class or series of the shares of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such stockholder or other Proposing Person with respect to any class or series of the shares of the Corporation, or which provides, directly or indirectly, the opportunity to profit or share in any profit derived from any decrease in the price or value of any class or series of the shares of the Corporation ("***Short Interests***"); (4) a description of any rights to dividends on the shares of the Corporation owned beneficially by such stockholder or other Proposing Person that are separated or separable from the underlying shares of the Corporation; (5) a description of any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or other Proposing Person is a general partner or, directly or indirectly, beneficially owns an interest in a general partner; (6) a description of any performance-related fees (other than an asset-based fee) to which such stockholder or other Proposing Person is entitled based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, including, without limitation, any such interests held by members of such stockholder's or other Proposing Person's immediate family sharing the same household; (7) a description of any significant equity interests or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by such stockholder or other Proposing Person; and (8) a description of any direct or indirect interest of such stockholder or other Proposing Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), and (F) any other information relating to such stockholder or other Proposing Person, if any, that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder.

(c) Unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting of stockholders to present the proposed business, such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this section, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the making of such proposal at such meeting by such stockholder stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders.

(d) Notwithstanding the foregoing provisions of this Section 2.10, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Section 2.10; *provided however*, that any references in this Section 2.10 to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit any requirements applicable to proposals as to any business to be considered pursuant to this Section 2.10. Nothing in this Section 2.10 shall be deemed to affect any rights (i) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (ii) of the holders of any series of preferred stock if and to the extent provided for under law, the Certificate of Incorporation or these Bylaws.

(e) Notwithstanding any provisions to the contrary, the notice requirements set forth in subsections (a) and (b) above shall be deemed satisfied by a stockholder if the stockholder has notified the Corporation of the stockholder's intention to present a proposal at an annual meeting in compliance with applicable rules and regulations promulgated under the Exchange Act and such stockholder's proposal has been included in a proxy statement that has been prepared by the Corporation to solicit proxies for such annual meeting.

2.11 Conduct of Business. At every meeting of the stockholders, the Chairperson of the Board, or, in his absence, the Vice Chairperson of the Board, if any, or, in his absence, the Chief Executive Officer, or, in his absence, such other person as may be appointed by the Board, shall act as chairperson. The Secretary of the Corporation or a person designated by the chairperson of the meeting shall act as secretary of the meeting. Unless otherwise approved by the chairperson of the meeting, attendance at the stockholders' meeting is restricted to stockholders of record, persons authorized in accordance with Section 2.8 of these Bylaws to act by proxy, and officers of the Corporation.

The chairperson of the meeting shall call the meeting to order, establish the agenda, and conduct the business of the meeting in accordance therewith or, at the chairperson's discretion, the business of the meeting may be conducted otherwise in accordance with the wishes of the stockholders in attendance. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting.

The chairperson shall also conduct the meeting in an orderly manner, rule on the precedence of, and procedure on, motions and other procedural matters, and exercise discretion with respect to such procedural matters with fairness and good faith toward all those entitled to take part. Without limiting the foregoing, the chairperson may (a) restrict attendance at any time to bona fide stockholders of record and their proxies and other persons in attendance at the invitation of the presiding officer or Board, (b) restrict use of audio or video recording devices at the meeting, and (c) impose reasonable limits on the amount of time taken up at the meeting on discussion in general or on remarks by any one stockholder. Should any person in attendance become unruly or obstruct the meeting proceedings, the chairperson shall have the power to have such person removed from the meeting. Notwithstanding anything in the Bylaws to the contrary, no business shall be conducted at a meeting except in accordance with the procedures set forth in Section 2.10, this Section 2.11 and Section 3.12. The chairperson of the meeting, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the provisions of Section 2.10, this Section 2.11 and Section 3.12, and if he should so determine that any proposed nomination or business is not in compliance with such sections, he shall so declare to the meeting that such defective nomination or proposal shall be disregarded.

2.12 Stockholder Action Without Meeting. Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders; provided, however, that any action required or permitted to be taken by the holders of preferred stock, voting separately as a series or separately as a class with one or more other such series, may be taken without a meeting, without prior notice and without a vote, to the extent expressly so provided by the applicable certificate of designation relating to such series of preferred stock.

2.13 Meetings by Remote Communication. If authorized by the Board, and subject to such guidelines and procedures as the Board may adopt, stockholders and proxy holders not physically present at a meeting of stockholders may, by means of remote communication, participate in the meeting and be deemed present in person and vote at the meeting, whether such meeting is to be held at a designated place or solely by means of remote communication, provided that (a) the Corporation shall implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxy holder, (b) the Corporation shall implement reasonable measures to provide such stockholders and proxy holders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (c) if any stockholder or proxy holder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the

Corporation.

ARTICLE III
BOARD OF DIRECTORS

3.1 General Powers. The business and affairs of the Corporation shall be managed by or under the direction of a Board, who may exercise all of the powers of the Corporation except as otherwise provided by law or the Certificate of Incorporation. In the event of a vacancy on the Board, the remaining directors, except as otherwise provided by law, may exercise the powers of the full Board until the vacancy is filled.

3.2 Election. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, members of the Board shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote in the election of directors; *provided that*, whenever the holders of any class or series of capital stock of the Corporation are entitled to elect one or more directors pursuant to the provisions of the Certificate of Incorporation (including, but not limited to, any duly authorized certificate of designation), such directors shall be elected by a plurality of the votes of such class or series present in person or represented by proxy at the meeting and entitled to vote in the election of such directors. Elections of directors need not be by written ballot.

3.3 Number and Term. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, the number of directors shall initially be six (6) and, thereafter, shall be fixed from time to time exclusively by the Board pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption).

3.4 Resignations. Any director may resign at any time upon notice given in writing or by electronic transmission to the Board, the Chairperson of the Board, the Chief Executive Officer of the Corporation or the Secretary. The resignation shall take effect at the time specified therein, and if no time is specified, at the time of its receipt. The acceptance of a resignation shall not be necessary to make it effective unless otherwise expressly provided in the resignation.

3.5 Removal. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, directors may only be removed for cause and only upon the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

3.6 Vacancies and Newly Created Directorships. Except as otherwise provided by applicable law, vacancies occurring in any directorship (whether by death, resignation, retirement, disqualification, removal or other cause) and newly created directorships resulting from any increase in the number of directors shall be filled in accordance with the Certificate of Incorporation. Any director elected to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall be duly elected and qualified, or until his or her earlier death, resignation, retirement, disqualification or removal.

3.7 Regular Meetings. Regular meetings of the Board may be held without notice at such time and place, either within or without the State of Delaware, as shall be determined from time to time by the Board; *provided that* any director who is absent when such a determination is made shall be given notice of the determination. A regular meeting of the Board may be held without notice immediately after and at the same place as the annual meeting of stockholders.

3.8 Special Meetings. Special meetings of the Board may be called by the Chairperson of the Board, the Chief Executive Officer, the President or a majority of the directors then in office and may be held at any time and place, within or without the State of Delaware.

3.9 Notice of Special Meetings. Notice of any special meeting of directors shall be given to each director by whom it is not waived by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director by (a) giving notice to such director in person or by telephone, electronic transmission or voice message system at least 24 hours in advance of the meeting, (b) sending a facsimile to such director's last known facsimile number, or delivering written notice by hand to such director's last known business or home address, at least 24 hours in advance of the meeting, or (c) mailing written notice to such director's last known business or home address at least three days in advance of the meeting. A notice or waiver of notice of a meeting of the Board need not specify the purposes of the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting.

3.10 Participation in Meetings by Telephone Conference Calls or Other Methods of Communication. Directors or any members of any committee designated by the directors may participate in a meeting of the Board or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

3.11 Quorum; Adjournment. A majority of the total number of authorized directors shall constitute a quorum at any meeting of the Board. In the absence of a quorum at any such meeting, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present. Interested directors may be counted in determining the presence of a quorum at a meeting of the Board or at a meeting of a committee which authorizes a particular contract or transaction.

3.12 Action at Meeting. At any meeting of the Board at which a quorum is present, the vote of a majority of those present shall be sufficient to take any action, unless a different vote is specified by law, the Certificate of Incorporation or these Bylaws.

3.13 Action by Written Consent. Any action required or permitted to be taken at any meeting of the Board or of any committee of the Board may be taken without a meeting if all members of the Board or committee, as the case may be, consent to the action in writing or by electronic transmission, and the writings or electronic transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.14 Committees. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Corporation, with such lawfully delegated powers and duties as it therefor confers; *provided* that, the committee membership of each committee designated by the Board will comply with the applicable rules of the exchange on which any securities of the Corporation are listed. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board and subject to the provisions of the DGCL, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board may from time to time request. Except as the Board may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by such rules,

its business shall be conducted as nearly as possible in the same manner as is provided in these Bylaws for the Board. Unless otherwise provided in the Certificate of Incorporation, these Bylaws or the resolutions of the Board designating the committee, a committee may create one or more subcommittees, each subcommittee consists of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

3.15 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board may from time to time determine. No such payment shall preclude any director from serving the Corporation or any of its parent or subsidiary Corporations in any other capacity and receiving compensation for such service.

3.16 Nomination of Director Candidates. Subject to the rights of holders of any class or series of preferred stock then outstanding, nominations for the election of directors at an annual meeting may be made by (i) the Board or a duly authorized committee thereof or (ii) by any stockholder of the Corporation who is a stockholder of record at the time of giving the notice provided for in paragraphs (b) and (c) of this Section 3.16, who is entitled to vote at the meeting and who complies with the procedures set forth in this Section 3.16.

(a) All nominations by stockholders must be made pursuant to timely notice given in writing to the Secretary of the Corporation. To be timely, a stockholder's nomination for a director to be elected at an annual meeting must be received at the Corporation's principal executive offices not later than ninety (90) days nor earlier than one hundred twenty (120) days prior to the first anniversary of the date of the preceding year's annual meeting as first specified in the Corporation's notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting is advanced by more than thirty (30) days or delayed (other than as a result of adjournment) by more than thirty (30) days from the first anniversary of the previous year's annual meeting, notice by the stockholder to be timely must be received not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the date on which public announcement of the date of such meeting is first made. Each such notice shall set forth (i) as to the stockholder and the beneficial owner, if any, on whose behalf the nomination is being made, and any of their respective affiliates or associates or others acting in concert therewith (each, a "***Nominating Person***"), the name and address, as they appear on the Corporation's books, of the stockholder who intends to make the nomination and of any other Nominating Person, (ii) the class or series and number of shares of the Corporation which are owned beneficially and of record by the stockholder and any other Nominating Person as of the date of the notice, and a representation that the stockholder will notify the Corporation in writing within five (5) business days after the record date for voting at the meeting of the class or series and number of shares of the Corporation owned beneficially and of record by the stockholder and any other Nominating Person as of the record date for voting at the meeting, (iii) a representation that the stockholder intends to appear in person or by proxy at the meeting to nominate the nominee specified in the notice, (iv) the following information regarding the ownership interests of the stockholder and any other Nominating Person, which shall be supplemented in writing by the stockholder not later than ten (10) days after the record date for notice of the meeting to disclose such interests as of such record date: (A) a description of any Derivative Instrument directly or indirectly owned beneficially by such stockholder or other Nominating Person, and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation; (B) a description of any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder or other Nominating Person has a right to vote any shares of any security of the Corporation; (C) a description of any Short Interests in any securities of the Corporation directly or indirectly owned beneficially by such stockholder or other Nominating Person; (D) a description of any rights to dividends on the shares of the Corporation owned beneficially by such stockholder or other Nominating Person that are separated or separable from the underlying shares of the Corporation; (E) a description of any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or other Nominating Person is a general partner or, directly or indirectly, beneficially owns an interest in a general partner; (F) a description of any performance-related fees (other than an asset-based fee) to which such stockholder or other Nominating Person is entitled based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, including, without limitation, any such interests held by members of such stockholder's or other Nominating Person's immediate family sharing the same household; (G) a description of any significant equity interests or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by such stockholder or other Nominating Person; and (H) a description of any direct or indirect interest of such stockholder or other Nominating Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (v) a description of all arrangements or understandings between the stockholder or other Nominating Person and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the stockholder, (vi) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among such stockholder and any other Nominating Person, on the one hand, and each nominee, and his respective affiliates and associates, or others acting in concert therewith, on the other hand, including, without limitation all information that would be required to be disclosed pursuant to Rule 404 promulgated under Regulation S-K if the stockholder and any Nominating Person, if any, or any affiliate or associate thereof or person acting in concert therewith, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant, (vii) such other information regarding each nominee as would be required to be included in a proxy statement filed pursuant to the proxy rules of the SEC, had the nominee been nominated, or intended to be nominated, by the Board, and (viii) the signed consent of each nominee to serve as a director of the Corporation if so elected. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Notwithstanding the second sentence of this Section 3.16(b), in the event that the number of directors to be elected at an annual meeting is increased and there is no public announcement by the Corporation naming the nominees for the additional directorships at least 100 days prior to the one-year anniversary of the date of the preceding year's annual meeting as first specified in the Corporation's notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), a stockholder's notice required by this Section 3.16(b) shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the Corporation.

(b) Subject to the rights of holders of any class or series of preferred stock then outstanding, nominations of persons for election to the Board may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (i) by or at the direction of the Board or a committee thereof or (ii) by any stockholder who complies with the notice procedures set forth in this Section 3.16 and who is a stockholder of record at the time such notice is delivered to the Secretary of the Corporation. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as are specified in the Corporation's notice of meeting, if the stockholder's notice as required by Section 3.12(a) is delivered to the Secretary at the principal executive offices of the Corporation not earlier than ninety (90) days prior to such special meeting and not later than the close of business on the later of the sixtieth (60th) day prior to such special meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) For purposes of these Bylaws, "***public announcement***" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed or furnished by the Corporation with the SEC pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(d) Only those persons who are nominated in accordance with the procedures set forth in this section shall be eligible for election as directors at any meeting of stockholders. The Chairperson of the Board or Secretary may, if the facts warrant, determine that a notice received by the Corporation relating to a nomination proposed to be

made does not satisfy the requirements of this Section 3.16 (including if the stockholder does not provide the updated information required under Section 3.12(b) to the Corporation within five (5) business days following the record date for the meeting), and if it be so determined, shall so declare and any such nomination shall not be introduced at such meeting of stockholders, notwithstanding that proxies in respect of such vote may have been received. The chairperson of the meeting shall have the power and duty to determine whether a nomination brought before the meeting was made in accordance with the procedures set forth in this section, and, if any nomination is not in compliance with this section (including if the stockholder does not provide the updated information required under Section 3.12(b) to the Corporation within five (5) business days following the record date for the meeting), to declare that such defective nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received. Unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting or a special meeting of stockholders of the Corporation to present a nomination, such nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 3.16, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the making of such nomination at such meeting by such stockholder stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders.

(e) Notwithstanding the foregoing provisions of this Section 3.16, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Section 3.16; provided however, that any references in this Section 3.16 to the Exchange Act or the rules promulgated thereunder are not intended to and shall not limit any requirements applicable to nominations to be considered pursuant to this Section 3.16. Nothing in this Section 3.16 shall be deemed to affect any rights of the holders of any series of preferred stock if and to the extent provided for under law, the Certificate of Incorporation or these Bylaws.

3.17 Reliance on Books and Records. A member of the Board, or a member of any committee designated by the Board shall, in the performance of such members' duties, be fully protected in relying in good faith upon records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of the Corporation's officers or employees, or committees of the Board, or by any other person as to matters the member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

ARTICLE IV
OFFICERS

4.1 Enumeration. The officers of the Corporation shall consist of a Chief Executive Officer, a President, a Secretary, a Treasurer, a Chief Financial Officer and such other officers with such other titles as the Board shall determine, including, at the discretion of the Board, a Chairperson of the Board and one or more Vice Presidents and Assistant Secretaries. The Board may appoint such other officers as it may deem appropriate.

4.2 Election. Officers shall be elected annually by the Board at its first meeting following the annual meeting of stockholders. Officers may be appointed by the Board at any other meeting.

4.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

4.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these Bylaws, each officer shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the vote appointing the officer, or until such officer's earlier death, resignation or removal.

4.5 Resignation and Removal. Any officer may resign by delivering his written resignation to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any officer elected by the Board may be removed at any time, with or without cause, by the Board.

4.6 Chairperson of the Board; Vice Chairperson of the Board. The Board may appoint a Chairperson of the Board. If the Board appoints a Chairperson of the Board, the Chairperson of the Board shall perform such duties and possess such powers as are assigned to the Chairperson by the Board and these Bylaws. The Board may appoint a Vice Chairperson of the Board. If the Board appoints a Vice Chairperson of the Board, the Vice Chairperson of the Board shall perform such duties and possess such powers as are assigned to the Chairperson by the Board and these Bylaws. Unless otherwise provided by the Board, the Chairperson of the Board or, in the Chairperson's absence, the Vice Chairperson of the Board, if any, shall preside at all meetings of the Board.

4.7 Chief Executive Officer. The Chief Executive Officer of the Corporation shall, subject to the direction of the Board, have general supervision, direction and control of the business and the officers of the Corporation. In the absence or nonexistence of a Chairperson of the Board, or, in the Chairperson's absence, the Vice Chairperson of the Board, if any, the Chief Executive Officer shall preside at meetings of the stockholders and at meetings of the Board. The Chief Executive Officer shall have the general powers and duties of management usually vested in the chief executive officer of a Corporation, including general supervision, direction and control of the business and supervision of other officers of the Corporation, and shall have such other powers and duties as may be prescribed by the Board or these Bylaws.

4.8 President. Subject to the direction of the Board and such supervisory powers as may be given by these Bylaws or the Board to the Chairperson of the Board or the Chief Executive Officer, if such titles be held by other officers, the President shall have general supervision, direction and control of the business and supervision of other officers of the Corporation. Unless otherwise designated by the Board, the President shall be the Chief Executive Officer of the Corporation. The President shall have such other powers and duties as may be prescribed by the Board or these Bylaws. The President shall have power to sign stock certificates, contracts and other instruments of the Corporation which are authorized and shall have general supervision and direction of all of the other officers, employees and agents of the Corporation, other than the Chairperson of the Board and the Chief Executive Officer.

4.9 Vice Presidents. Any Vice President shall perform such duties and possess such powers as the Board, the Chief Executive Officer or the President may from time to time prescribe. In the event of the absence, inability or refusal to act of the President, the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board) shall perform the duties of the President and when so performing shall have all the powers of and be subject to all the restrictions upon the President. The Board may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board.

4.10 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board or the President may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are set forth in these Bylaws and as are incident to the office of the Secretary, including, without limitation, the duty and power to give notices of all meetings of stockholders and special meetings of the Board, to keep a record of the proceedings of all meetings of stockholders and the Board, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board, the Chief Executive Officer, the President or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the person presiding at the meeting shall designate a temporary secretary to keep a record of the meeting.

4.11 Treasurer. The Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation, the duty and power to keep and be responsible for all funds and securities of the Corporation, to maintain the financial records of the Corporation, to deposit funds of the Corporation in depositories as authorized, to disburse such funds as authorized, to make proper accounts of such funds, and to render as required by the Board accounts of all such transactions and of the financial condition of the Corporation.

4.12 Chief Financial Officer. The Chief Financial Officer shall perform such duties and shall have such powers as may from time to time be assigned to the Chief Financial Officer by the Board, the Chief Executive Officer or the President. Unless otherwise designated by the Board, the Chief Financial Officer shall be the Treasurer of the Corporation.

4.13 Salaries. Officers of the Corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board.

4.14 Delegation of Authority. The Board may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

ARTICLE V
CAPITAL STOCK

5.1 Issuance of Stock. Subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the Corporation or the whole or any part of any unissued balance of the authorized capital stock of the Corporation held in its treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board in such manner, for such consideration and on such terms as the Board may determine.

5.2 Stock Certificates. The shares of stock of the Corporation shall be represented by certificates, provided that the Board may provide by resolution or resolutions that some or all of any class or series of stock of the Corporation shall be uncertificated shares; provided, however, that no such resolution shall apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Every holder of stock of the Corporation represented by certificates, and, upon written request to the Corporation's transfer agent or registrar, any holder of uncertificated shares, shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board, certifying the number and class of shares of stock owned by such stockholder in the Corporation. Each such certificate shall be signed by, or in the name of the Corporation by, the Chairperson or Vice Chairperson, if any, of the Board, or the President or a Vice President, and the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation. Any or all of the signatures on the certificate may be a facsimile.

Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, the Bylaws, applicable securities laws or any agreement among any number of stockholders or among such holders and the Corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

5.3 Transfers. Except as otherwise established by rules and regulations adopted by the Board, and subject to applicable law, shares of stock may be transferred on the books of the Corporation: (i) in the case of shares represented by a certificate, by the surrender to the Corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or authenticity of signature as the Corporation or its transfer agent may reasonably require; and (ii) in the case of uncertificated shares, upon the receipt of proper transfer instructions from the registered owner thereof. Except as may be otherwise required by law, the Certificate of Incorporation or the Bylaws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the Corporation in accordance with the requirements of these Bylaws.

5.4 Lost, Stolen or Destroyed Certificates The Corporation may issue a new certificate in place of any previously issued certificate alleged to have been lost, stolen, or destroyed, or it may issue uncertificated shares if the shares represented by such certificate have been designated as uncertificated shares in accordance with Section 5.2, upon such terms and conditions as the Board may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity as the Board may require for the protection of the Corporation or any transfer agent or registrar.

5.5 Record Dates. The Board may fix in advance a record date for the determination of the stockholders entitled to vote at any meeting of stockholders. Such record date shall not precede the date on which the resolution fixing the record date is adopted and shall not be more than 60 nor less than 10 days before the date of such meeting.

If no record date is fixed by the Board, the record date for determining the stockholders entitled to notice of or to vote at a meeting of stockholders shall be the close of business on the day before the date on which notice is given, or, if notice is waived, the close of business on the day before the date on which the meeting is held.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for the determination of stockholders entitled to vote in accordance with the foregoing provisions.

The Board may fix in advance a record date (a) for the determination of stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, concession or exchange of stock, or (b) for the purpose of any other lawful action. Any such record date shall not precede the date on which the resolution fixing the record date is adopted and shall not be more than 60 days prior to the action to which such record date relates. If no record date is fixed by the Board, the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting when no prior action by the Board is necessary shall be the date on which the first written consent is expressed. The record date for determining stockholders for any other purpose shall be the close of business on the day on which the Board adopts the resolution relating to such purpose.

ARTICLE VI
GENERAL PROVISIONS

6.1 Fiscal Year. The fiscal year of the Corporation shall be as fixed by the Board.

6.2 Waiver of Notice. Whenever any notice whatsoever is required to be given by law, by the Certificate of Incorporation or by these Bylaws, a waiver of such notice either in writing signed by the person entitled to such notice or such person's duly authorized attorney, or by electronic transmission or any other method permitted under the DGCL, whether before, at or after the time stated in such waiver, or the appearance of such person or persons at such meeting in person or by proxy, shall be deemed equivalent to such notice. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance at any meeting shall constitute waiver of notice except attendance for the sole purpose of objecting to the timeliness or manner of notice.

6.3 Actions with Respect to Securities of Other Corporations. Except as the Board may otherwise designate, the Chief Executive Officer or President or any officer of the Corporation authorized by the Chief Executive Officer or President shall have the power to vote and otherwise act on behalf of the Corporation, in person or by proxy, and may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact to this Corporation (with or without power of substitution) at any meeting of stockholders or shareholders (or with respect to any action of stockholders) of any other Corporation or organization, the securities of which may be held by this Corporation and otherwise to exercise any and all rights and powers that this Corporation may possess by reason of this Corporation's ownership of securities in such other Corporation or other organization.

6.4 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the Corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

6.5 Certificate of Incorporation. All references in these Bylaws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the Corporation, as amended and in effect from time to time.

6.6 Severability. Any determination that any provision of these Bylaws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these Bylaws.

6.7 Pronouns. All pronouns used in these Bylaws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

6.8 Notices. Except as otherwise specifically provided herein or required by law, all notices required to be given to any stockholder, director, officer, employee or agent of the Corporation shall be in writing and may in every instance be effectively given by hand delivery to the recipient thereof, by depositing such notice in the mails, postage paid, or by sending such notice by commercial courier service, or by facsimile or other electronic transmission, provided that notice to stockholders by electronic transmission shall be given in the manner provided in Section 232 of the DGCL. Any such notice shall be addressed to such stockholder, director, officer, employee or agent at his, her or its last known address as the same appears on the books of the Corporation. The time when such notice shall be deemed to be given shall be the time such notice is received by such stockholder, director, officer, employee or agent, or by any person accepting such notice on behalf of such person, if delivered by hand, facsimile, other electronic transmission or commercial courier service, or the time such notice is dispatched, if delivered through the mails. Without limiting the manner by which notice otherwise may be given effectively, notice to any stockholder shall be deemed given: (a) if by facsimile, when directed to a number at which the stockholder has consented to receive notice; (b) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice; (c) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (i) such posting and (ii) the giving of such separate notice; (d) if by any other form of electronic transmission, when directed to the stockholder; and (e) if by mail, when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation.

6.9 Reliance Upon Books, Reports and Records. Each director, each member of any committee designated by the Board, and each officer of the Corporation shall, in the performance of such individual's duties, be fully protected in relying in good faith upon the books of account or other records of the Corporation as provided by law, including reports made to the Corporation by any of its officers, by an independent certified public accountant, or by an appraiser selected with reasonable care.

6.10 Time Periods. In applying any provision of these Bylaws which require that an act be done or not done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

6.11 Facsimile Signatures. In addition to the provisions for use of facsimile signatures elsewhere specifically authorized in these Bylaws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board or a committee thereof.

6.12 Voting of Securities Owned by the Corporation. All stock and other securities of other Corporations owned or held by the Corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board, or, in the absence of such authorization, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII
AMENDMENTS

7.1 By the Board. Except as otherwise set forth in these Bylaws, these Bylaws may be altered, amended or repealed or new Bylaws may be adopted only in accordance with Article X of the Certificate of Incorporation.

7.2 By the Stockholders. Except as otherwise set forth in these Bylaws, and subject tothe Certificate of Incorporation, these Bylaws may be altered, amended or repealed or new Bylaws may be adopted by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the shares of capital stock of the Corporation issued and outstanding and entitled to vote generally in any election of directors, voting together as a single class. Such vote may be held at any annual meeting of stockholders, or at any special meeting of stockholders provided that notice of such alteration, amendment, repeal or adoption of new Bylaws shall have been stated in the notice of such special meeting.

ARTICLE VIII
INDEMNIFICATION OF DIRECTORS AND OFFICERS

8.1 Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (“***proceeding***”), by reason of the fact that such person or a person of whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director or officer of another Corporation, or as a controlling person of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director or officer, or in any other capacity while serving as a director or officer, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment) against all expenses, liability and loss reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director or officer and shall inure to the benefit of his heirs, executors and administrators; provided, that except as provided in Section 8.2 of this Article VIII, the Corporation shall indemnify any such person seeking indemnity in connection with a proceeding (or part thereof) initiated by such person only if (a) such indemnification is expressly required to be made by law, (b) the proceeding (or part thereof) was authorized by the Board, (c) such indemnification is provided by the Corporation, in its sole discretion, pursuant to the powers vested in the Corporation under the DGCL, or (d) the proceeding (or part thereof) is brought to establish or enforce a right to indemnification or advancement under an indemnity agreement or any other statute or law or otherwise as required under Section 145 of the DGCL. The rights hereunder shall be contract rights and shall include the right to be paid reasonable expenses and attorneys’ fees incurred in defending any such proceeding in advance of its final disposition; provided, that the payment of such expenses incurred by a director or officer of the Corporation in his capacity as a director or officer (and not in any other capacity in which service was or is tendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of such proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it should be determined ultimately by final judicial decision from which there is no further right to appeal that such director or officer is not entitled to be indemnified under this section or otherwise.

8.2 Right of Claimant to Bring Suit. If a claim under Section 8.1 is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, or twenty (20) days in the case of a claim for advancement of expenses, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if such suit is not frivolous or brought in bad faith, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any, has been tendered to this Corporation) that the claimant has not met the standards of conduct which make it permissible under the DGCL for the Corporation to indemnify the claimant for the amount claimed. Neither the failure of the Corporation (including its Board, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because the claimant has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its Board, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final judicial decision from which there is no further right to appeal that the indemnitee has not met any applicable standard for indemnification set forth in the DGCL. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, shall be on the Corporation.

8.3 Indemnification of Employees and Agents. The Corporation may, to the extent authorized from time to time by the Board, grant rights to indemnification, and to the advancement of related expenses, to any employee or agent of the Corporation to the fullest extent of the provisions of this Article VIII with respect to the indemnification of and advancement of expenses to directors and officers of the Corporation.

8.4 Non-Exclusivity of Rights. The rights conferred on any person in this Article VIII shall not be exclusive of any other right which such persons may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, Bylaw, agreement, vote of stockholders or disinterested directors or otherwise.

8.5 Indemnification Contracts. The Board is authorized to enter into a contract with any director, officer, employee or agent of the Corporation, or any person serving at the request of the Corporation as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise, including employee benefit plans, providing for indemnification rights equivalent to or, if the Board so determines, greater than, those provided for in this Article VIII.

8.6 Insurance. The Corporation shall maintain insurance to the extent reasonably available, at its expense, to protect itself and any such director, officer, employee or agent of the Corporation or another Corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

8.7 Effect of Amendment. Any amendment, repeal or modification of any provision of this Article VIII shall not adversely affect any right or protection of an indemnitee or his successor in respect of any act or omission occurring prior to such amendment, repeal or modification.

8.8 Reliance. Persons who after the date of the adoption of this provision become or remain directors or officers of the Corporation or who, while a director or officer of the Corporation, become or remain a director, officer, employee or agent of a subsidiary, shall be conclusively presumed to have relied on the rights to indemnity, advance of expenses and other rights contained in this Article VIII in entering into or continuing such service. The rights to indemnification and to the advance of expenses conferred in this Article VIII shall apply to claims made against an indemnitee arising out of acts or omissions which occurred or occur both prior and subsequent to the adoption hereof.

* * *

WARRANT

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR QUALIFIED UNDER ANY STATE OR FOREIGN SECURITIES LAWS AND MAY NOT BE OFFERED FOR SALE, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED OR ASSIGNED UNLESS (I) A REGISTRATION STATEMENT COVERING SUCH SHARES IS EFFECTIVE UNDER THE ACT AND IS QUALIFIED UNDER APPLICABLE STATE AND FOREIGN LAW OR (II) THE TRANSACTION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS UNDER THE ACT AND THE QUALIFICATION REQUIREMENTS UNDER APPLICABLE STATE AND FOREIGN LAW AND, IF THE CORPORATION REQUESTS, AN OPINION SATISFACTORY TO THE CORPORATION TO SUCH EFFECT HAS BEEN RENDERED BY COUNSEL.

Original Issue Date: [_____________]

FOR VALUE RECEIVED, ASP Isotopes Inc., a Delaware corporation (the "**Company**"), hereby certifies that [_____________], or its registered assigns (the "**Holder**") is entitled to purchase from the Company [_____________] duly authorized, validly issued, fully paid and nonassessable shares of Common Stock at a purchase price per share of $0.01 (subject to adjustment as provided herein, the "**Exercise Price**"), all subject to the terms, conditions and adjustments set forth below in this Warrant. Certain capitalized terms used herein are defined in Section 1 hereof.

1. Definitions. As used in this Warrant, the following terms have the respective meanings set forth below:

"**Aggregate Exercise Price**" means an amount equal to the product of (a) the number of Warrant Shares in respect of which this Warrant is then being exercised pursuant to Section 3 hereof, *multiplied by* (b) the Exercise Price in effect as of the Exercise Date in accordance with the terms of this Warrant.

"**Board**" means the board of directors of the Company.

"**Business Day**" means any day, except a Saturday, Sunday or legal holiday, on which banking institutions in the city of New York, New York are authorized or obligated by law or executive order to close.

"**Common Stock**" means the common stock, par value $0.01 per share, of the Company, and any capital stock into which such Common Stock shall have been converted, exchanged or reclassified following the date hereof.

"**Common Stock Deemed Outstanding**" means, at any given time, the sum of (a) the number of shares of Common Stock actually outstanding at such time, *plus* (b) the number of shares of Common Stock issuable upon exercise of Options actually outstanding at such time, *plus* (c) the number of shares of Common Stock issuable upon conversion or exchange of Convertible Securities actually outstanding at such time (treating as actually outstanding any Convertible Securities issuable upon exercise of Options actually outstanding at such time), in each case, regardless of whether the Options or Convertible Securities are actually exercisable at such time; provided, that Common Stock Deemed Outstanding at any given time shall not include shares owned or held by or for the account of the Company or any of its wholly-owned subsidiaries.

"**Company**" has the meaning set forth in the preamble.

"**Convertible Securities**" means any securities (directly or indirectly) convertible into or exchangeable for Common Stock, but excluding Options.

"**Excluded Issuances**" means any issuance or sale (or deemed issuance or sale in accordance with Section 4(d)) by the Company after the Original Issue Date of: (a) shares of Common Stock issued upon the exercise of this Warrant; (b) shares of Common Stock (as such number of shares is equitably adjusted for subsequent stock splits, stock combinations, stock dividends and recapitalizations) issued directly or upon the exercise of Options to directors, officers, employees, or consultants of the Company in connection with their service as directors of the Company, their employment by the Company or their retention as consultants by the Company, in each case authorized by the Board and issued pursuant to the Company's equity incentive plan (including all such shares of Common Stock and Options outstanding prior to the Original Issue Date); (c) shares of Common Stock issued upon the conversion or exercise of Options (other than Options covered by clause (b) above) or Convertible Securities issued prior to the Original Issue Date, *provided* that such securities are not amended after the date hereof to increase the number of shares of Common Stock issuable thereunder or to lower the exercise or conversion price thereof; (d) shares of Common Stock, Options or Convertible Securities issued (i) to persons in connection with a joint venture, strategic alliance or other commercial relationship with such person (including persons that are customers, suppliers and strategic partners of the Company) relating to the operation of the Company's business and not for the primary purpose of raising equity capital, (ii) in connection with a transaction in which the Company, directly or indirectly, acquires another business or its tangible or intangible assets, or (iii) to lenders as equity kickers in connection with debt financings of the Company, in each case where such transactions have been approved by the Board; (e) shares of Common Stock in an offering for cash for the account of the Company that is underwritten on a firm commitment basis and is registered with the Securities and Exchange Commission under the Securities Act of 1933, as amended; or (f) shares of Common Stock, Options or Convertible Securities issued to the lessor or vendor in any office lease or equipment lease or similar equipment financing transaction in which the Company obtains the use of such office space or equipment for its business.

"**Exercise Date**" means, for any given exercise of this Warrant, the date on which the conditions to such exercise as set forth in Section 3 shall have been satisfied at or prior to 5:00 p.m., New York City time, on a Business Day, including, without limitation, the receipt by the Company of the Exercise Agreement, the Warrant and the Aggregate Exercise Price.

"**Exercise Agreement**" has the meaning set forth in Section 3(a)(i).

"**Exercise Period**" has the meaning set forth in Section 2.

"**Exercise Price**" has the meaning set forth in the preamble.

"**Fair Market Value**" means, as of any particular date: (a) the volume weighted average of the closing sales prices of the Common Stock for such day on all domestic securities exchanges on which the Common Stock may at the time be listed; (b) if there have been no sales of the Common Stock on any such exchange on any such day, the average of the highest bid and lowest asked prices for the Common Stock on all such exchanges at the end of such day; (c) if on any such day the Common Stock is not listed on a domestic securities exchange, the closing sales price of the Common Stock as quoted on the OTC Bulletin Board, the Pink OTC Markets or similar quotation system or association for such day; or (d) if there have been no sales of the Common Stock on the OTC Bulletin Board, the Pink OTC Markets or similar quotation system or association on such day, the average of the highest bid and lowest asked prices for the Common Stock quoted on the OTC

Bulletin Board, the Pink OTC Markets or similar quotation system or association at the end of such day; in each case, averaged over twenty (20) consecutive Business Days ending on the Business Day immediately prior to the day as of which "Fair Market Value" is being determined; provided, that if the Common Stock is listed on any domestic securities exchange, the term "Business Day" as used in this sentence means Business Days on which such exchange is open for trading. If at any time the Common Stock is not listed on any domestic securities exchange or quoted on the OTC Bulletin Board, the Pink OTC Markets or similar quotation system or association, the "Fair Market Value" of the Common Stock shall be the fair market value per share as determined by the Board in good faith.

"**Holder**" has the meaning set forth in the preamble.

"**Options**" means any warrants or other rights or options to subscribe for or purchase Common Stock or Convertible Securities.

"**Original Issue Date**" means the date first written above.

"**Nasdaq**" means The NASDAQ Stock Market LLC.

"**OTC Bulletin Board**" means the Financial Industry Regulatory Authority OTC Bulletin Board electronic inter-dealer quotation system.

"**Person**" means any individual, sole proprietorship, partnership, limited liability company, corporation, joint venture, trust, incorporated organization or government or department or agency thereof.

"**Pink OTC Markets**" means the OTC Markets Group Inc. electronic inter-dealer quotation system, including OTCQX, OTCQB and OTC Pink.

"**Warrant**" means this Warrant and all warrants issued upon division or combination of, or in substitution for, this Warrant.

"**Warrant Shares**" means the shares of Common Stock or other capital stock of the Company then purchasable upon exercise of this Warrant in accordance with the terms of this Warrant.

2. Term of Warrant. Subject to the terms and conditions hereof, at any time or from time to time after the date hereof and prior to 5:00 p.m., New York City time, on second (2nd) anniversary of the date hereof or, if such day is not a Business Day, on the next preceding Business Day (the "**Exercise Period**"), the Holder of this Warrant may exercise this Warrant for all or any part of the Warrant Shares purchasable hereunder (subject to adjustment as provided herein).

3. Exercise of Warrant.

(a) Exercise Procedure. This Warrant may be exercised from time to time on any Business Day during the Exercise Period, for all or any part of the unexercised Warrant Shares, upon:

(i) surrender of this Warrant to the Company at its then principal executive offices (or an indemnification undertaking with respect to this Warrant in the case of its loss, theft or destruction), together with an Exercise Agreement in the form attached hereto as **Exhibit A** (each, an "**Exercise Agreement**"), duly completed (including specifying the number of Warrant Shares to be purchased) and executed; and

(ii) payment to the Company of the Aggregate Exercise Price in accordance with Section 3(b).

(b) Payment of the Aggregate Exercise Price. Payment of the Aggregate Exercise Price shall be made, at the option of the Holder as expressed in the Exercise Agreement, by the following methods:

(i) by delivery to the Company of a certified or official bank check payable to the order of the Company or by wire transfer of immediately available funds to an account designated in writing by the Company, in the amount of such Aggregate Exercise Price; or

(ii) by instructing the Company to withhold a number of Warrant Shares then issuable upon exercise of this Warrant with an aggregate Fair Market Value as of the Exercise Date equal to such Aggregate Exercise Price.

In the event of any withholding of Warrant Shares or surrender of other equity securities pursuant to clause (ii) above where the number of shares whose value is equal to the Aggregate Exercise Price is not a whole number, the number of shares withheld by or surrendered to the Company shall be rounded up to the nearest whole share and the Company shall make a cash payment to the Holder (by delivery of a certified or official bank check or by wire transfer of immediately available funds) based on the incremental fraction of a share being so withheld by or surrendered to the Company in an amount equal to the product of (x) such incremental fraction of a share being so withheld or surrendered multiplied by (y) in the case of Common Stock, the Fair Market Value per Warrant Share as of the Exercise Date.

(c) Delivery of Stock Certificates. Upon receipt by the Company of the Exercise Agreement, surrender of this Warrant and payment of the Aggregate Exercise Price (in accordance with Section 3(a) hereof), the Company shall, as promptly as practicable, and in any event within 20 Business Days thereafter, execute (or cause to be executed) and deliver (or cause to be delivered) to the Holder a certificate or certificates representing the Warrant Shares issuable upon such exercise, together with cash in lieu of any fraction of a share, as provided in Section 3(d) hereof. The stock certificate or certificates so delivered shall be, to the extent possible, in such denomination or denominations as the exercising Holder shall reasonably request in the Exercise Agreement and shall be registered in the name of the Holder or, subject to compliance with Section 7 below, such other Person's name as shall be designated in the Exercise Agreement. This Warrant shall be deemed to have been exercised and such certificate or certificates of Warrant Shares shall be deemed to have been issued, and the Holder or any other Person so designated to be named therein shall be deemed to have become a holder of record of such Warrant Shares for all purposes, as of the Exercise Date.

(d) Fractional Shares. The Company shall not be required to issue a fractional Warrant Share upon exercise of any Warrant. As to any fraction of a Warrant Share that the Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay to such Holder an amount in cash (by delivery of a certified or official bank check or by wire transfer of immediately available funds) equal to the product of (i) such fraction multiplied by (ii) the Fair Market Value of one Warrant Share on the Exercise Date.

(e) Delivery of New Warrant. Unless the purchase rights represented by this Warrant shall have expired or shall have been fully exercised, the Company shall, at the time of delivery of the certificate or certificates representing the Warrant Shares being issued in accordance with Section 3(c) hereof, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unexpired and unexercised Warrant Shares called for by this Warrant. Such new Warrant shall in all other respects be identical to this Warrant.

(f) Valid Issuance of Warrant and Warrant Shares; Payment of Taxes. With respect to the exercise of this warrant, the Company hereby represents, covenants and agrees:

(i) This Warrant is, and any Warrant issued in substitution for or replacement of this Warrant shall be, upon issuance, duly authorized and validly issued.

(ii) All Warrant Shares issuable upon the exercise of this Warrant pursuant to the terms hereof shall be, upon issuance, and the Company shall take all such actions as may be necessary or appropriate in order that such Warrant Shares are, validly issued, fully paid and non-assessable, issued without violation of any preemptive or similar rights of any stockholder of the Company and free and clear of all taxes, liens and charges.

(iii) The Company shall take all such actions as may be necessary to ensure that all such Warrant Shares are issued without violation by the Company of any applicable law or governmental regulation or any requirements of any domestic securities exchange upon which shares of Common Stock or other securities constituting Warrant Shares may be listed at the time of such exercise (except for official notice of issuance which shall be immediately delivered by the Company upon each such issuance).

(iv) The Company shall use its best efforts to cause the Warrant Shares, immediately upon such exercise, to be listed on any domestic securities exchange upon which shares of Common Stock or other securities constituting Warrant Shares are listed at the time of such exercise.

(v) The Company shall pay all expenses in connection with, and all taxes and other governmental charges that may be imposed with respect to, the issuance or delivery of Warrant Shares upon exercise of this Warrant; *provided*, that the Company shall not be required to pay any tax or governmental charge that may be imposed with respect to any applicable withholding or the issuance or delivery of the Warrant Shares to any Person other than the Holder, and no such issuance or delivery shall be made unless and until the Person requesting such issuance has paid to the Company the amount of any such tax, or has established to the satisfaction of the Company that such tax has been paid.

(g) Conditional Exercise. Notwithstanding any other provision hereof, if an exercise of any portion of this Warrant is to be made in connection with a public offering or a sale of the Company (pursuant to a merger, sale of stock, or otherwise), such exercise may at the election of the Holder be conditioned upon the consummation of such transaction, in which case such exercise shall not be deemed to be effective until immediately prior to the consummation of such transaction.

(h) Reservation of Shares. During the Exercise Period, the Company shall at all times reserve and keep available out of its authorized but unissued Common Stock or other securities constituting Warrant Shares, solely for the purpose of issuance upon the exercise of this Warrant, the maximum number of Warrant Shares issuable upon the exercise of this Warrant, and the par value per Warrant Share shall at all times be less than or equal to the applicable Exercise Price. The Company shall not increase the par value of any Warrant Shares receivable upon the exercise of this Warrant above the Exercise Price then in effect, and shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant.

4. Adjustment to Exercise Price and Number of Warrant Shares. In order to prevent dilution of the purchase rights granted under this Warrant, the Exercise Price and the number of Warrant Shares issuable upon exercise of this Warrant shall be subject to adjustment from time to time as provided in this Section 4 (in each case, after taking into consideration any prior adjustments pursuant to this Section 4).

(a) Adjustment to Exercise Price Upon Issuance of Common Stock. Except as provided in Section 4(c) and except in the case of an event described in either Section 4(e) or Section 4(f), if the Company shall, at any time or from time to time after the Original Issue Date, issue or sell, or in accordance with Section 4(d) is deemed to have issued or sold, any shares of Common Stock without consideration or for consideration per share less than the Exercise Price in effect immediately prior to such issuance or sale (or deemed issuance or sale), then immediately upon such issuance or sale (or deemed issuance or sale), the Exercise Price in effect immediately prior to such issuance or sale (or deemed issuance or sale) shall be reduced (and in no event increased) to an Exercise Price equal to the quotient obtained by dividing:

(i) the sum of (A) the product obtained by multiplying the Common Stock Deemed Outstanding immediately prior to such issuance or sale (or deemed issuance or sale) by the Exercise Price then in effect plus (B) the aggregate consideration, if any, received by the Company upon such issuance or sale (or deemed issuance or sale); by

(ii) the sum of (A) the Common Stock Deemed Outstanding immediately prior to such issuance or sale (or deemed issuance or sale) plus (B) the aggregate number of shares of Common Stock issued or sold (or deemed issued or sold) by the Company in such issuance or sale (or deemed issuance or sale).

(b) Adjustment to Number of Warrant Shares Upon Adjustment to Exercise Price. Upon any and each adjustment of the Exercise Price as provided in Section 4(a), the number of Warrant Shares issuable upon the exercise of this Warrant immediately prior to any such adjustment shall be increased to a number of Warrant Shares equal to the quotient obtained by dividing:

(i) the product of (A) the Exercise Price in effect immediately prior to any such adjustment multiplied by (B) the number of Warrant Shares issuable upon exercise of this Warrant immediately prior to any such adjustment; by

(ii) the Exercise Price resulting from such adjustment.

(c) Exceptions To Adjustment Upon Issuance of Common Stock. Anything herein to the contrary notwithstanding, there shall be no adjustment to the Exercise Price or the number of Warrant Shares issuable upon exercise of this Warrant with respect to any Excluded Issuance.

(d) Effect of Certain Events on Adjustment to Exercise Price. For purposes of determining the adjusted Exercise Price under Section 4(a) hereof, the following shall be applicable:

(i) Issuance of Options. If the Company shall, at any time or from time to time after the Original Issue Date, in any manner grant or sell (whether directly or by assumption in a merger or otherwise) any Options, whether or not such Options or the right to convert or exchange any Convertible Securities issuable upon the exercise of such Options are immediately exercisable, and the price per share (determined as provided in this paragraph and in Section 4(d)(v)) for which Common Stock is issuable upon the exercise of such Options or upon the conversion or exchange of Convertible Securities issuable upon the exercise of such Options is less than the Exercise Price in effect immediately prior to the time of the granting or sale of such Options, then the total maximum number of shares of Common Stock issuable upon the exercise of such Options or upon conversion or exchange of the total maximum amount of Convertible Securities issuable upon the exercise of such Options shall be deemed to have been issued as of the date of granting or sale of such Options (and thereafter shall

be deemed to be outstanding for purposes of adjusting the Exercise Price under Section 4(a)), at a price per share equal to the quotient obtained by dividing (A) the sum (which sum shall constitute the applicable consideration received for purposes of Section 4(a)) of (x) the total amount, if any, received or receivable by the Company as consideration for the granting or sale of all such Options, plus (y) the minimum aggregate amount of additional consideration payable to the Company upon the exercise of all such Options, plus (z), in the case of such Options which relate to Convertible Securities, the minimum aggregate amount of additional consideration, if any, payable to the Company upon the issuance or sale of all such Convertible Securities and the conversion or exchange of all such Convertible Securities, by (B) the total maximum number of shares of Common Stock issuable upon the exercise of all such Options or upon the conversion or exchange of all Convertible Securities issuable upon the exercise of all such Options. Except as otherwise provided in Section 4(d)(iii), no further adjustment of the Exercise Price shall be made upon the actual issuance of Common Stock or of Convertible Securities upon exercise of such Options or upon the actual issuance of Common Stock upon conversion or exchange of Convertible Securities issuable upon exercise of such Options.

(ii) Issuance of Convertible Securities. If the Company shall, at any time or from time to time after the Original Issue Date, in any manner grant or sell (whether directly or by assumption in a merger or otherwise) any Convertible Securities, whether or not the right to convert or exchange any such Convertible Securities is immediately exercisable, and the price per share (determined as provided in this paragraph and in Section 4(d)(v)) for which Common Stock is issuable upon the conversion or exchange of such Convertible Securities is less than the Exercise Price in effect immediately prior to the time of the granting or sale of such Convertible Securities, then the total maximum number of shares of Common Stock issuable upon conversion or exchange of the total maximum amount of such Convertible Securities shall be deemed to have been issued as of the date of granting or sale of such Convertible Securities (and thereafter shall be deemed to be outstanding for purposes of adjusting the Exercise Price pursuant to Section 4(a)), at a price per share equal to the quotient obtained by dividing (A) the sum (which sum shall constitute the applicable consideration received for purposes of Section 4(a)) of (x) the total amount, if any, received or receivable by the Company as consideration for the granting or sale of such Convertible Securities, plus (y) the minimum aggregate amount of additional consideration, if any, payable to the Company upon the conversion or exchange of all such Convertible Securities, by (B) the total maximum number of shares of Common Stock issuable upon the conversion or exchange of all such Convertible Securities. Except as otherwise provided in Section 4(d)(iii), no further adjustment of the Exercise Price shall be made upon the actual issuance of Common Stock upon conversion or exchange of such Convertible Securities or the issue or sale of Convertible Securities upon exercise of any Options to purchase any such Convertible Securities for which adjustments of the Exercise Price have been made pursuant to the other provisions of this Section 4(d).

(iii) Change in Terms of Options or Convertible Securities. Upon any change in any of (A) the total amount received or receivable by the Company as consideration for the granting or sale of any Options or Convertible Securities referred to in Section 4(d)(i)or Section 4(d)(ii) hereof, (B) the minimum aggregate amount of additional consideration, if any, payable to the Company upon the exercise of any Options or upon the issuance, conversion or exchange of any Convertible Securities referred to in Section 4(d)(i) or Section 4(d)(ii) hereof, (C) the rate at which Convertible Securities referred to in Section 4(d)(i) or Section 4(d)(ii) hereof are convertible into or exchangeable for Common Stock, or (D) the maximum number of shares of Common Stock issuable in connection with any Options referred to in Section 4(d)(i) hereof or any Convertible Securities referred to in Section 4(d)(ii) hereof (in each case, other than in connection with an Excluded Issuance), then (whether or not the original issuance or sale of such Options or Convertible Securities resulted in an adjustment to the Exercise Price pursuant to this Section 4) the Exercise Price in effect at the time of such change shall be adjusted or readjusted, as applicable, to the Exercise Price which would have been in effect at such time pursuant to the provisions of this Section 4 had such Options or Convertible Securities still outstanding provided for such changed consideration, conversion rate or maximum number of shares, as the case may be, at the time initially granted, issued or sold, but only if as a result of such adjustment or readjustment the Exercise Price then in effect is reduced, and the number of Warrant Shares issuable upon the exercise of this Warrant immediately prior to any such adjustment or readjustment shall be correspondingly adjusted or readjusted pursuant to the provisions of Section 4(b).

(iv) Treatment of Expired or Terminated Options or Convertible Securities. Upon the expiration or termination of any unexercised Option (or portion thereof) or any unconverted or unexchanged Convertible Security (or portion thereof) for which any adjustment (either upon its original issuance or upon a revision of its terms) was made pursuant to this Section 4 (including without limitation upon the redemption or purchase for consideration of all or any portion of such Option or Convertible Security by the Company), the Exercise Price then in effect hereunder shall forthwith be changed pursuant to the provisions of this Section 4 to the Exercise Price which would have been in effect at the time of such expiration or termination had such unexercised Option (or portion thereof) or unconverted or unexchanged Convertible Security (or portion thereof), to the extent outstanding immediately prior to such expiration or termination, never been issued.

(v) Calculation of Consideration Received. If the Company shall, at any time or from time to time after the Original Issue Date, issue or sell, or is deemed to have issued or sold in accordance with Section 4(d), any shares of Common Stock, Options or Convertible Securities: (A) for cash, the consideration received therefor shall be deemed to be the net amount received by the Company therefor; (B) for consideration other than cash, the amount of the consideration other than cash received by the Company shall be the fair value of such consideration, except where such consideration consists of marketable securities, in which case the amount of consideration received by the Company shall be the market price (as reflected on any securities exchange, quotation system or association or similar pricing system covering such security) for such securities as of the end of business on the date of receipt of such securities; (C) for no specifically allocated consideration in connection with an issuance or sale of other securities of the Company, together comprising one integrated transaction, the amount of the consideration therefor shall be deemed to be the fair value of such portion of the aggregate consideration received by the Company in such transaction as is attributable to such shares of Common Stock, Options or Convertible Securities, as the case may be, issued in such transaction; or (D) to the owners of the non-surviving entity in connection with any merger in which the Company is the surviving corporation, the amount of consideration therefor shall be deemed to be the fair value of such portion of the net assets and business of the non-surviving entity as is attributable to such shares of Common Stock, Options or Convertible Securities, as the case may be, issued to such owners. The net amount of any cash consideration and the fair value of any consideration other than cash or marketable securities shall be determined by the Board in good faith.

(vi) Record Date. For purposes of any adjustment to the Exercise Price or the number of Warrant Shares in accordance with this Section 4, in case the Company shall take a record of the holders of its Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in Common Stock, Options or Convertible Securities or (B) to subscribe for or purchase Common Stock, Options or Convertible Securities, then such record date shall be deemed to be the date of the issue or sale of the shares of Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(vii) Treasury Shares. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company or any of its wholly-owned subsidiaries, and the disposition of any such shares (other than the cancellation or retirement thereof or the transfer of such shares among the Company and its wholly-owned subsidiaries) shall be considered an issue or sale of Common Stock for the purpose of this Section 4.

(e) Adjustment to Exercise Price and Warrant Shares Upon Dividend, Subdivision or Combination of Common Stock. If the Company shall, at any time or from time to time after the Original Issue Date, (i) pay a dividend or make any other distribution upon the Common Stock or any other capital stock of the Company payable in shares of Common Stock or in Options or Convertible Securities, or (ii) subdivide (by any stock split, recapitalization or otherwise) its outstanding shares of Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to any such dividend, distribution or subdivision shall be proportionately reduced and the number of Warrant Shares issuable upon exercise of this Warrant shall be proportionately increased. If the Company at any time combines (by combination, reverse stock split or otherwise) its outstanding shares of Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination shall be proportionately increased and the number of Warrant Shares issuable upon exercise of this Warrant shall be proportionately decreased. Any adjustment under this Section 4(e) shall become effective at the close of business on the date the dividend, subdivision or combination becomes effective.

(f) Adjustment to Exercise Price and Warrant Shares Upon Reorganization, Reclassification, Consolidation or Merger. In the event of any (i) capital reorganization of the Company, (ii) reclassification of the stock of the Company (other than a change in par value or from par value to no par value or from no par value to par value or as a result of a stock dividend or subdivision, split-up or combination of shares), (iii) consolidation or merger of the Company with or into another Person, (iv) sale of all or substantially all of the Company's assets to another Person or (v) other similar transaction (other than any such transaction covered by Section 4(e)), in each case which entitles the holders of Common Stock to receive (either directly or upon subsequent liquidation) stock, securities or assets with respect to or in exchange for Common Stock, each Warrant shall, immediately after such reorganization, reclassification, consolidation, merger, sale or similar transaction, remain outstanding and shall thereafter, in lieu of or in addition to (as the case may be) the number of Warrant Shares then exercisable under this Warrant, be exercisable for the kind and number of shares of stock or other securities or assets of the Company or of the successor Person resulting from such transaction to which the Holder would have been entitled upon such reorganization, reclassification, consolidation, merger, sale or similar transaction if the Holder had exercised this Warrant in full immediately prior to the time of such reorganization, reclassification, consolidation, merger, sale or similar transaction and acquired the applicable number of Warrant Shares then issuable hereunder as a result of such exercise (without taking into account any limitations or restrictions on the exercisability of this Warrant); and, in such case, appropriate adjustment (in form and substance satisfactory to the Holder) shall be made with respect to the Holder's rights under this Warrant to insure that the provisions of this Section 4 hereof shall thereafter be applicable, as nearly as possible, to this Warrant in relation to any shares of stock, securities or assets thereafter acquirable upon exercise of this Warrant (including, in the case of any consolidation, merger, sale or similar transaction in which the successor or purchasing Person is other than the Company, an immediate adjustment in the Exercise Price to the value per share for the Common Stock reflected by the terms of such consolidation, merger, sale or similar transaction, and a corresponding immediate adjustment to the number of Warrant Shares acquirable upon exercise of this Warrant without regard to any limitations or restrictions on exercise, if the value so reflected is less than the Exercise Price in effect immediately prior to such consolidation, merger, sale or similar transaction). The provisions of this Section 4(f) shall similarly apply to successive reorganizations, reclassifications, consolidations, mergers, sales or similar transactions. The Company shall not effect any such reorganization, reclassification, consolidation, merger, sale or similar transaction unless, prior to the consummation thereof, the successor Person (if other than the Company) resulting from such reorganization, reclassification, consolidation, merger, sale or similar transaction, shall assume, by written instrument substantially similar in form and substance to this Warrant and satisfactory to the Holder, the obligation to deliver to the Holder such shares of stock, securities or assets which, in accordance with the foregoing provisions, such Holder shall be entitled to receive upon exercise of this Warrant.

(g) Certificate as to Adjustment.

(i) As promptly as reasonably practicable following any adjustment of the Exercise Price, but in any event not later than 20 Business Days thereafter, the Company shall furnish to the Holder a certificate of an executive officer setting forth in reasonable detail such adjustment and the facts upon which it is based and certifying the calculation thereof.

(ii) As promptly as reasonably practicable following the receipt by the Company of a written request by the Holder, but in any event not later than 20 Business Days thereafter, the Company shall furnish to the Holder a certificate of an executive officer certifying the Exercise Price then in effect and the number of Warrant Shares or the amount, if any, of other shares of stock, securities or assets then issuable upon exercise of the Warrant.

(h) Notices. In the event:

(i) that the Company shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon exercise of the Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, to vote at a meeting (or by written consent), to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(ii) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another Person, or sale of all or substantially all of the Company's assets to another Person; or

(iii) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company;

then, and in each such case, the Company shall send or cause to be sent to the Holder at least 20 Business Days prior to the applicable record date or the applicable expected effective date, as the case may be, for the event, a written notice specifying, as the case may be, (A) the record date for such dividend, distribution, meeting or consent or other right or action, and a description of such dividend, distribution or other right or action to be taken at such meeting or by written consent, or (B) the effective date on which such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up is proposed to take place, and the date, if any is to be fixed, as of which the books of the Company shall close or a record shall be taken with respect to which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon exercise of the Warrant) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Warrant and the Warrant Shares.

5. Purchase Rights. In addition to any adjustments pursuant to Section 4 above, if at any time the Company grants, issues or sells any shares of Common Stock, Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of Common Stock (the "**Purchase Rights**"), then the Holder shall be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder would have acquired if the Holder had held the number of Warrant Shares acquirable upon complete exercise of this Warrant immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights. Anything herein to the contrary notwithstanding, the Holder shall not be entitled to the Purchase Rights granted herein with respect to any Excluded Issuance.

6. Stockholders Agreement. This Warrant and all Warrant Shares issuable upon exercise of this Warrant are and shall become subject to, and have the benefit of, the Stockholders Agreement, and the Holder shall be required, for so long as the Holder holds this Warrant or any Warrant Shares, to become and remain a party to the Stockholders Agreement.

7. Transfer of Warrant. Subject to the transfer conditions referred to in the legend endorsed hereon and the terms and conditions of the Stockholders Agreement, this

Warrant and all rights hereunder are transferable, in whole or in part, by the Holder without charge to the Holder, upon surrender of this Warrant to the Company at its then principal executive offices with a properly completed and duly executed Assignment of Warrant in form acceptable to the Company, together with funds sufficient to pay any transfer taxes described in Section 3(f)(v) in connection with the making of such transfer. Upon such compliance, surrender and delivery and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant, if any, not so assigned and this Warrant shall promptly be cancelled.

8. Holder Not Deemed a Stockholder; Limitations on Liability. Except as otherwise specifically provided herein, prior to the issuance to the Holder of the Warrant Shares to which the Holder is then entitled to receive upon the due exercise of this Warrant, the Holder shall not be entitled to vote or receive dividends or be deemed the holder of shares of capital stock of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, as such, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company.

9. Replacement on Loss; Division and Combination.

(a) Replacement of Warrant on Loss. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and upon delivery of an indemnity reasonably satisfactory to it (it being understood that a written indemnification agreement or affidavit of loss of the Holder shall be a sufficient indemnity) and, in case of mutilation, upon surrender of such Warrant for cancellation to the Company, the Company at its own expense shall execute and deliver to the Holder, in lieu hereof, a new Warrant of like tenor and exercisable for an equivalent number of Warrant Shares as the Warrant so lost, stolen, mutilated or destroyed; *provided*, that, in the case of mutilation, no indemnity shall be required if this Warrant in identifiable form is surrendered to the Company for cancellation.

(b) Division and Combination of Warrant. Subject to compliance with the applicable provisions of this Warrant and the Stockholders Agreement as to any transfer or other assignment which may be involved in such division or combination, this Warrant may be divided or, following any such division of this Warrant, subsequently combined with other Warrants, upon the surrender of this Warrant or Warrants to the Company at its then principal executive offices, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the respective Holders or their agents or attorneys. Subject to compliance with the applicable provisions of this Warrant and the Stockholders Agreement as to any transfer or assignment which may be involved in such division or combination, the Company shall at its own expense execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants so surrendered in accordance with such notice. Such new Warrant or Warrants shall be of like tenor to the surrendered Warrant or Warrants and shall be exercisable in the aggregate for an equivalent number of Warrant Shares as the Warrant or Warrants so surrendered in accordance with such notice.

10. Compliance with the Securities Act.

(a) Agreement to Comply with the Securities Act; Legend. The Holder, by acceptance of this Warrant, agrees to comply in all respects with the provisions of this Section 10 and the restrictive legend requirements set forth on the face of this Warrant and further agrees that such Holder shall not offer, sell or otherwise dispose of this Warrant or any Warrant Shares to be issued upon exercise hereof except under circumstances that will not result in a violation of the Securities Act of 1933, as amended (the "**Securities Act**"). This Warrant and all Warrant Shares issued upon exercise of this Warrant (unless registered under the Securities Act) shall be stamped or imprinted with a legend in substantially the following form:

"THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR QUALIFIED UNDER ANY STATE OR FOREIGN SECURITIES LAWS AND MAY NOT BE OFFERED FOR SALE, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED OR ASSIGNED UNLESS (I) A REGISTRATION STATEMENT COVERING SUCH SHARES IS EFFECTIVE UNDER THE ACT AND IS QUALIFIED UNDER APPLICABLE STATE AND FOREIGN LAW OR (II) THE TRANSACTION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS UNDER THE ACT AND THE QUALIFICATION REQUIREMENTS UNDER APPLICABLE STATE AND FOREIGN LAW AND, IF THE CORPORATION REQUESTS, AN OPINION SATISFACTORY TO THE CORPORATION TO SUCH EFFECT HAS BEEN RENDERED BY COUNSEL."

(b) Representations of the Holder. In connection with the issuance of this Warrant, the Holder specifically represents, as of the date hereof, to the Company by acceptance of this Warrant as follows:

(i) The Holder is an "accredited investor" as defined in Rule 501(a) of Regulation D promulgated under the Securities Act. The Holder is acquiring this Warrant and the Warrant Shares to be issued upon exercise hereof for investment for its own account and not with a view towards, or for resale in connection with, the public sale or distribution of this Warrant or the Warrant Shares, except pursuant to sales registered or exempted under the Securities Act.

(ii) The Holder understands and acknowledges that this Warrant and the Warrant Shares to be issued upon exercise hereof are "restricted securities" under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that, under such laws and applicable regulations, such securities may be resold without registration under the Securities Act only in certain limited circumstances. In addition, the Holder represents that it is familiar with Rule 144 under the Securities Act, as presently in effect, and understands the resale limitations imposed thereby and by the Securities Act.

(iii) The Holder acknowledges that it can bear the economic and financial risk of its investment for an indefinite period, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Warrant and the Warrant Shares. The Holder has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of the Warrant and the business, properties, prospects and financial condition of the Company.

11. Warrant Register. The Company shall keep and properly maintain at its principal executive offices books for the registration of the Warrant and any transfers thereof. The Company may deem and treat the Person in whose name the Warrant is registered on such register as the Holder thereof for all purposes, and the Company shall not be affected by any notice to the contrary, except any assignment, division, combination or other transfer of the Warrant effected in accordance with the provisions of this Warrant.

12. Notices. All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given: (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by facsimile or e-mail of a PDF document (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next Business Day if sent after normal business hours of the recipient; or (d) on the fifth day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective parties at the addresses indicated below (or at such other address for a party as shall be specified in a notice given in accordance with this Section 12).

If to the Company:	1108 SE Strathmore Drive Port Saint Lucie, FL 34952 Attention: Paul Mann
If to the Holder:	At the address set forth on the signature page

13. Cumulative Remedies. Except to the extent expressly provided in Section 8 to the contrary, the rights and remedies provided in this Warrant are cumulative and are not exclusive of, and are in addition to and not in substitution for, any other rights or remedies available at law, in equity or otherwise.

14. Equitable Relief. Each of the Company and the Holder acknowledges that a breach or threatened breach by such party of any of its obligations under this Warrant would give rise to irreparable harm to the other party hereto for which monetary damages would not be an adequate remedy and hereby agrees that in the event of a breach or a threatened breach by such party of any such obligations, the other party hereto shall, in addition to any and all other rights and remedies that may be available to it in respect of such breach, be entitled to equitable relief, including a restraining order, an injunction, specific performance and any other relief that may be available from a court of competent jurisdiction.

15. Entire Agreement. This Warrant constitutes the sole and entire agreement of the parties to this Warrant with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter. In the event of any inconsistency between the statements in the body of this Warrant the statements in the body of this Warrant shall control.

16. Successor and Assigns. This Warrant and the rights evidenced hereby shall be binding upon and shall inure to the benefit of the parties hereto and the successors of the Company and the successors and permitted assigns of the Holder. Such successors and/or permitted assigns of the Holder shall be deemed to be a Holder for all purposes hereunder.

17. No Third-Party Beneficiaries. This Warrant is for the sole benefit of the Company and the Holder and their respective successors and, in the case of the Holder, permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit or remedy of any nature whatsoever, under or by reason of this Warrant.

18. Headings. The headings in this Warrant are for reference only and shall not affect the interpretation of this Warrant.

19. Amendment and Modification; Waiver. Except as otherwise provided herein, this Warrant may only be amended, modified or supplemented by an agreement in writing signed by each party hereto. No waiver by the Company or the Holder of any of the provisions hereof shall be effective unless explicitly set forth in writing and signed by the party so waiving. No waiver by any party shall operate or be construed as a waiver in respect of any failure, breach or default not expressly identified by such written waiver, whether of a similar or different character, and whether occurring before or after that waiver. No failure to exercise, or delay in exercising, any rights, remedy, power or privilege arising from this Warrant shall operate or be construed as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege.

20. Severability. If any term or provision of this Warrant is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Warrant or invalidate or render unenforceable such term or provision in any other jurisdiction.

21. Governing Law. This Warrant shall be governed by and construed in accordance with the internal laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of laws of any jurisdiction other than those of the State of Delaware.

22. Waiver of Jury Trial. Each party acknowledges and agrees that any controversy which may arise under this Warrant is likely to involve complicated and difficult issues and, therefore, each such party irrevocably and unconditionally waives any right it may have to a trial by jury in respect of any legal action arising out of or relating to this Warrant or the transactions contemplated hereby.

23. Counterparts. This Warrant may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Warrant delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Warrant.

24. No Strict Construction. This Warrant shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has duly executed this Warrant on the Original Issue Date.

ASP ISOTOPES INC.

By: ______________________
Name:
Title:

Accepted and agreed,
[_____________]

Name:
Title:
Address:

Exhibit A

PURCHASE/EXERCISE FORM

To: **ASP Isotopes Inc.** Dated: __________________, 202__

The undersigned, pursuant to the provisions set forth in the attached Warrant, hereby irrevocably elects to (*choose one*):

_____ PAYMENT EXERCISE: Purchase _______ shares of the Common Stock covered by such Warrant and herewith makes payment of $_________, representing the Aggregate Exercise Price for such shares at the price per share provided for in such Warrant, or

_____ CASHLESS EXERCISE: In lieu of payment of the Aggregate Exercise Price hereof, the attached Warrant is being exercised for ______ shares purchasable under the Warrant pursuant to the cashless exercise provision in Section 3(b)(ii) of such Warrant.

[_____________]

By: ______________________
Name:
Title

Exhibit 5.1

DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, California 92121-2133
www.dlapiper.com

October 11, 2022

ASP Isotopes Inc.
433 Plaza Real, Suite 275
Boca Raton, Florida 33432

Re: Registration Statement on Form S-1 (File No. 333-267392)

Ladies and Gentlemen:

We have acted as counsel to ASP Isotopes Inc., a Delaware corporation (the "***Company***"), in connection with the Company's filing of a Registration Statement on Form S-1 under the Securities Act of 1933, as amended (the "***Securities Act***"), initially filed with the Securities and Exchange Commission (the "***Commission***") on September 12, 2022 (File No. 333-267392) (as amended, the "***Registration Statement***"), relating to an underwritten public offering of up to 2,300,000 shares (the "***Shares***") of the Company's common stock, $0.01 par value per share ("***Common Stock***"), which includes up to 300,000 Shares that may be purchasable by the underwriters upon their exercise of an option granted to the underwriters by the Company.

This opinion is being furnished in accordance with the requirements of Item 16(a) of Form S-1 and Item 601(b)(5)(i) of Regulation S-K.

We have examined such instruments, documents and records as we deemed relevant and necessary for the basis of our opinion hereinafter expressed. In such examination, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals and the conformity to the originals of all documents submitted to us as copies. As to matters of fact relevant to our opinion set forth below, we have relied, without independent investigation, on certificates of public officials and of officers of the Company. We express no opinion concerning any law other than the laws of the State of Delaware.

On the basis of the foregoing, we are of the opinion that (a) upon filing by the Company of its Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware, a form of which has been filed as Exhibit 3.3 to the Registration Statement, the Shares will be duly authorized for issuance, and (b) when the Shares are issued and paid for in accordance with the terms of the underwriting agreement, substantially in the form filed as Exhibit 1.1 to the Registration Statement, they will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption "Legal Matters" in the prospectus included in the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Shares, or the Registration Statement. This opinion is rendered as of the date hereof, and we assume no obligation to advise you of any fact, circumstance, event or development that may hereafter be brought to our attention whether or not such occurrence would alter, affect or modify the opinion expressed herein.

Very truly yours,

/s/ DLA Piper LLP (US)

DLA Piper LLP (US)

Exhibit 10.1

ASP Isotopes Inc.
2021 Stock Incentive Plan

(Adopted on October 3, 2021)

1. General.

(a) **Available Awards.** This 2021 Stock Incentive Plan (the "Plan") of ASP Isotopes Inc., a Delaware corporation (the "Company"), provides for the grant of the following types of awards (each, an "Award"): (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Restricted Stock, (iv) Restricted Stock Units, (v) Stock Appreciation Rights, (vi) Stock Awards, (vii) Dividend Equivalents and (viii) Other Stock-Based Awards.

(b) **Eligible Award Recipients.** The persons eligible to receive Awards ("Eligible Persons") are Employees, Directors and Consultants.

(c) **General Purpose.** The Company, by means of the Plan, seeks to secure and retain the services of Eligible Persons, to provide incentives for Eligible Persons to exert maximum efforts for the success of the Company and the Affiliates and to provide a means by which Eligible Persons may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Awards.

2. Definitions.

As used in the Plan, the definitions contained in this Section 2 shall apply to the capitalized terms indicated below:

(a) "**Affiliate**" means any corporation, partnership, limited liability company, limited liability partnership, association, trust or other organization which, directly or indirectly, controls, is controlled by, or is under common control with, the Company. For purposes of the preceding sentence, "control" (including, with correlative meanings, the terms "controlled by" and "under common control with"), as used with respect to any entity or organization, shall mean the possession, directly or indirectly, of the power (i) to vote more than 50% of the securities having ordinary voting power for the election of the members of the board of directors (or similar governing body) of the controlled entity or organization, or (ii) to direct or cause the direction of the management and policies of the controlled entity or organization, whether through the ownership of voting securities, by contract, or otherwise.

(b) "**Award Agreement**" means a written or electronic document or agreement setting forth the terms and conditions of a specific Award. An Award Agreement may be in the form of an agreement to be executed by both the Participant and the Company (or an authorized representative of the Company) or certificates, notices or similar instruments as approved by the Committee.

(c) "**Board**" means the Board of Directors of the Company.

(d) "**Cause**," with respect to a Participant means, unless otherwise provided in an Award Agreement, (i) "Cause" as defined in any employment, consulting or similar agreement with the Company or an Affiliate to which the Participant is a party (an "**Individual Agreement**"), or (ii) if there is no such Individual Agreement or if it does not define Cause: (A) the Participant's plea of guilty or nolo contendere to, or conviction for, the commission of a felony or a crime of moral turpitude; (B) the Participant's willful fraud, misappropriation, embezzlement, or material breach of a fiduciary duty owed to the Company or an Affiliate; (C) the Participant's violation of a written policy of the Company or an Affiliate, which violation causes material harm to the Company's or Affiliate's business interests, reputation or goodwill; (D) the Participant's willful misconduct or gross or willful neglect in the performance of his or her duties on behalf of the Company or an Affiliate (other than as a result of the Participant's incapacity due to physical or mental illness or injury); (E) the Participant's material breach of any written agreement between the Participant and the Company or any Affiliate; (F) the Participant's breach of any nondisclosure, non-solicitation or noncompetition obligation owed to the Company or any Affiliate; (G) the Participant's refusal or willful failure to substantially perform his or her duties on behalf of the Company and the Affiliates; or (H) any other action by the Participant that materially harms the business interests, reputation, or goodwill of the Company or any Affiliate. The determination by the Committee as to whether "Cause" exists shall be final, conclusive and binding on the Participant.

(e) "**Change in Control**" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then outstanding voting securities, except that the following shall be deemed not to be a Change in Control: (A) any change in the beneficial ownership of the securities of the Company as a result of a transaction or series of related transactions undertaken primarily for capital-raising purposes and that is approved by the Board, or (B) a transaction the sole purpose of which is to change the state of the Company's incorporation or create a holding company that shall be owned in substantially the same proportions by the persons who owned the Company's securities immediately before such transaction;

(ii) The consummation of a merger or consolidation of the Company with or into another entity or any other corporate reorganization, if, as a result of such merger, consolidation or reorganization, more than fifty percent (50%) of the combined voting power of the continuing or surviving entity's securities outstanding immediately after such merger, consolidation or other reorganization is owned by persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization; or

(iii) The consummation of a sale, transfer or other disposition of all or substantially all the assets of the Company and its consolidated subsidiaries to an entity of which more than fifty percent (50%) of the combined voting power of its outstanding securities is owned by persons who are not stockholders of the Company at the effective time of such sale, transfer or disposition.

Notwithstanding the foregoing, for purposes of an Award that provides for a deferral of compensation under Section 409A, to the extent the impact of a Change in Control on such Award would subject a Participant to additional taxes under Section 409A, a Change in Control for purposes of such Award will mean both a Change in Control and a "change in the ownership of a corporation," "change in the effective control of a corporation," or a "change in the ownership of a substantial portion of a corporation's assets" within the meaning of Section 409A as applied to the Company.

(f) "**Code**" means the Internal Revenue Code of 1986, as amended.

(g) "**Committee**" means a committee of Directors appointed by the Board to administer the Plan or, if no such committee has been appointed by the Board, the Board. At such time as the Common Stock is publicly traded, in the sole discretion of the Board, the Committee may consist solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(h) "**Common Stock**" means the common stock, par value $0.01 per share, of the Company.

(i) "**Consultant**" means any person, including an advisor, engaged by the Company or an Affiliate to sell or market the Company's products and services or to render consulting or advisory services and who is compensated for such services.

(j) "**Continuous Service**" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. The Participant's Continuous Service shall not be deemed to have terminated merely because of a change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or a Director will not constitute an interruption of Continuous Service. The Committee or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of any leave of absence approved by that party, including sick leave, military leave or any other personal leave.

(k) "**Director**" means a member of the Board.

(l) "**Disability**" means permanent and total disability as determined under the Company's or Affiliate's long-term disability plan applicable to the Participant, or if there is no such plan applicable to the Participant, the Participant's permanent and total disability within the meaning of Section 22(e)(3) of the Code.

(m) "**Dividend Equivalent**" means a right, granted to a Participant under Section 11, to receive cash, Common Stock, other Awards or other property equal in value to dividends paid with respect to a specified number of shares of Common Stock, or other periodic payments.

(n) "**Effective Date**" means October 3, 2021, the date on which the Plan was approved by the Board.

(o) "**Employee**" means any person employed by the Company or an Affiliate. Mere service as a Director or payment of a director's fee by the Company or an Affiliate shall not be sufficient to constitute "employment" by the Company or an Affiliate.

(p) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(q) "**Fair Market Value**" means, as of any date, the value of a share of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded in any established market, the Fair Market Value of a share of Common Stock shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in *The Wall Street Journal* or such other source as the Committee deems reliable. Unless otherwise provided by the Committee, if there is no closing sales price and no closing bid for the Common Stock on the date of determination, then the Fair Market Value shall be the closing sales price for the Common Stock (or the closing bid, if no sales were reported) on the last preceding date for which such quotation exists.

(ii) If the Common Stock is not listed on any established stock exchange or traded in any established market, the Fair Market Value shall be the amount determined by the Committee in its discretion in such manner as it deems appropriate, taking into account all factors the Committee deems appropriate, including Section 409A.

Notwithstanding this definition of Fair Market Value, with respect to one or more Awards types, or for any other purpose for which the Committee must determine the Fair Market Value under the Plan, the Committee may choose a different measurement date or methodology for determining Fair Market Value so long as the determination is consistent with Section 409A and all other applicable laws and regulations.

(r) "**Incentive Stock Option**" means an Option that is intended to be, and qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(s) "**Listing Date**" means the first date upon which any security of the Company is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system.

(t) "**Non-Employee Director**" means a Director who either (i) is not a current Employee or Officer of the Company or its parent or a subsidiary, does not receive compensation (directly or indirectly) from the Company or its parent or a subsidiary for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ("Regulation S-K")), does not possess an interest in any other transaction as to which disclosure would be required under Item 404(a) of Regulation S-K and is not engaged in a business relationship as to which disclosure would be required under Item 404(b) of Regulation S-K; or (ii) is otherwise considered a "non-employee director" for purposes of Rule 16b-3.

(u) "**Nonstatutory Stock Option**" means an Option not intended to qualify as an Incentive Stock Option.

(v) "**Officer**" means (i) before the Listing Date, any person designated by the Company as an officer of the Company and (ii) on and after the Listing Date, a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(w) "**Option**" means an option, granted to a Participant under Section 6, to acquire shares of Common Stock.

(x) "**Optionholder**" means an Eligible Person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(y) "**Other Stock-Based Award**" means an Award granted to a Participant under Section 12.

(z) "**Participant**" means an Eligible Person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Award.

(aa) "**Restricted Stock**" means Common Stock, granted to a Participant under Section 8, that is subject to certain restrictions and to a risk of forfeiture.

(bb) "**Restricted Stock Unit**" means a right, granted to Participant under Section 9, to receive Common Stock, cash or a combination thereof at the end of a specified deferral period.

(cc) "**Rule 16b-3**" means Rule 16b-3 promulgated by the Securities and Exchange Commission under the Exchange Act, or any successor to Rule 16b-3, as in effect from time to time.

(dd) "**Section 409A**" means Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued or amended after the Effective Date.

(ee) "**Securities Act**" means the Securities Act of 1933, as amended.

(ff) "**Stock Appreciation Right Award**" or "**SAR**" means an Award granted to a Participant under Section 7.

(gg) "**Stock Award**" means unrestricted shares of Common Stock granted to a Participant under Section 10.

(hh) "**Ten Percent Shareholder**" means a person who owns (or is deemed to own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or a parent or subsidiary corporation (within the meaning of sections 424(e) and (f) of the Code).

3. Administration.

(a) **Administration by the Committee.** The Committee shall administer the Plan.

(b) **Powers of the Committee.** The Committee shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time (A) which Eligible Persons shall be granted Awards; (B) when and how each Award shall be granted; (C) what type or combination of types of Award shall be granted; (D) the provisions of each Award granted (which need not be identical), including the time or times when a person shall be permitted to receive Common Stock pursuant to an Award; and (E) the number of shares of Common Stock with respect to which an Award shall be granted to each such person.

(ii) To construe and interpret the Plan and Award Agreements, and Awards granted thereunder, and to establish, amend and revoke rules and regulations for their administration. The Committee, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement, in a manner and to the extent it shall deem necessary or expedient to make the Plan or any Award fully effective.

(iii) To settle all controversies regarding the Plan or any Award Agreement, or any Awards granted thereunder.

(iv) To accelerate the time at which an Option may first be exercised or the time during which any Award, or any portion thereof, will vest in accordance with the Plan, notwithstanding the provisions in the applicable Award Agreement stating the time at which it may first be exercised or the time during which it will vest.

(v) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards or Award Agreements in any respect the Committee deems necessary or advisable, as provided in Section 17.

(vi) To effect, at any time and from time to time, with the consent of any adversely affected Optionholder, (A) the reduction of the exercise price of any outstanding Option under the Plan, (B) the cancellation of any outstanding Option under the Plan and the grant in substitution thereof of (1) a new Option under the Plan (or another equity plan of the Company) covering the same or a different number of shares of Common Stock, (2) any other type of Award, (3) cash and/or (4) any other valuable consideration (as determined by the Committee in its sole discretion) or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(vii) To appoint agents to assist it in administering the Plan that are Employees (whether or not Officers) of the Company, provided that such individuals may not be delegated the authority to grant or modify any Awards that will, or may, be settled in Common Stock, unless specifically authorized pursuant to Section 3(c)(ii).

(viii) Generally, to exercise such powers and to perform such acts as the Committee deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or any Awards.

(c) **Delegation of Authority to Officer.** The Committee may delegate to one or more Officers the authority to do one or both of the following: (i) designate Employees who are not Officers to be recipients of Options (and, to the extent permitted by applicable law, other Award Awards) and the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Awards granted to such Employees; provided, however, that the Committee resolutions regarding such delegation shall specify the total number of shares of Common Stock that may be subject to Awards granted by such Officer and that such Officer may not grant an Award to himself or herself. Notwithstanding anything to the contrary in this Section 3(d), the Committee may not delegate to an Officer the authority to determine the Fair Market Value of Common Stock pursuant to the Plan.

(d) **Effect of the Committee's Decision.** All determinations, interpretations and constructions of the Plan made by the Committee in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

(e) **Limitation of Liability.** The Committee and each member thereof shall be entitled to, in good faith, rely or act upon any report or other information furnished to him or her by any officer or employee of the Company or any of the Affiliates, the Company's legal counsel, independent auditors, consultants or any other agents assisting in the administration of this Plan. Members of the Committee and any Officer or Employee of the Company or any of its subsidiaries acting at the direction or on behalf of the Committee shall not be personally liable for any action or determination taken or made in good faith with respect to this Plan, and shall, to the fullest extent permitted by law, be indemnified and held harmless by the Company with respect to any such action or determination.

4. Shares Subject to the Plan.

(a) **Limitation on Aggregate Number of Shares Issued Pursuant to the Plan.** Subject to the provisions of Section 15(a) relating to capitalization adjustments, the total number of shares of Common Stock reserved and available for issuance in connection with Awards under this Plan shall be 6,000,000 shares. For clarity, the foregoing

limitation does not limit the number of shares of Common Stock that may be subject to Awards that are granted pursuant to the Plan, but only the number of shares of Common Stock actually issued pursuant thereto. Following the Listing Date, shares of Common Stock may be issued in connection with a merger or acquisition as permitted by applicable law and the rules of any exchange on which the Common Stock is then listed, and such issuance shall not reduce the number of shares of Common Stock available for issuance under the Plan.

(b) **Reversion of Shares.** If any (i) Option shall for any reason expire or otherwise terminate (including in accordance with the cancellation and regrant provisions of Section 3(b)(vi)), in whole or in part, without having been exercised in full, (ii) Option is settled for cash (i.e., the Optionholder receives cash rather than stock upon the exercise thereof), (iii) shares of Common Stock issuable upon the exercise of an Option are not delivered to a Participant because such shares are withheld for the payment of taxes or all or any portion of the aggregate exercise price therefor (i.e., "net exercised") or (iv) shares of Common Stock issued to a Participant pursuant to an Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required for the vesting of such shares, then the shares of Common Stock issuable but not issued and delivered under such Option, or forfeited to or repurchased by the Company, shall remain available for issuance under the Plan and such expiration, termination, cancellation, settlement, withholding, forfeiture or repurchase shall not reduce (or otherwise offset) the number of shares of Common Stock that may be issued pursuant to the Plan. If the exercise price of any Option is satisfied by tendering shares of Common Stock held by the Participant (either by actual delivery or attestation), then the number of shares so tendered shall be treated as having been withheld from the number of shares issuable upon the exercise of the Option pursuant to clause (iii) of the preceding sentence and the number of shares deemed to have been so withheld shall remain available for issuance under the Plan and such withholding shall not reduce (or otherwise offset) the number of shares of Common Stock that may be issued pursuant to the Plan. If any shares of Common Stock delivered to a Participant upon the exercise of an Option, or any shares of Common Stock issued to a Participant pursuant to any other Award, shall for any reason be repurchased by the Company under a repurchase option provided under the Plan or any Award Agreement, the shares of Common Stock repurchased by the Company under such repurchase option shall not revert to or otherwise become available for issuance again under the Plan.

(c) **Incentive Stock Option Limit.** Subject to the provisions of Section 15(a) relating to capitalization adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options shall be 6,000,000 shares; provided, that the Company's stockholders approve this Plan within twelve (12) months of the Effective Date.

(d) **Source of Shares.** The stock issuable under the Plan shall be shares of authorized but unissued Common Stock, or reacquired Common Stock (including shares repurchased by the Company on the open market or otherwise).

5. Eligibility.

(a) **Eligibility for Specific Awards.** Incentive Stock Options may be granted to only Employees who are employed by the Company or a parent or subsidiary corporation (within the meaning of sections 424(e) and (f) of the Code) of the Company. Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants.

(b) **Consultants.**

(i) Prior to the Listing Date, a Consultant shall not be eligible for the grant of an Award if, at the time of grant, either the offer or the sale of the Company's securities to such Consultant is not exempt under Rule 701 of the Securities Act ("Rule 701") because of the nature of the services that the Consultant is providing to the Company, or because the Consultant is not a natural person, or as otherwise provided by Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions.

(ii) From and after the Listing Date, a Consultant shall be eligible for the grant of an Award only if, at the time of grant, a Form S-8 Registration Statement under the Securities Act ("Form S-8") is available to register the offer or the sale of the Company's securities to such Consultant, unless the Company determines both (A) that such grant (1) shall be registered in another manner under the Securities Act (e.g., on a Form S-3 Registration Statement) or (2) does not require registration under the Securities Act in order to comply with the requirements of the Securities Act, if applicable, and (B) that such grant complies with the securities laws of all other relevant jurisdictions.

(iii) Rule 701 and Form S-8 generally are available to consultants and advisors only if (A) they are natural persons; (B) they provide bona fide services to the issuer, its parents, its majority-owned subsidiaries or majority-owned subsidiaries of the issuer's parent and (C) the services are not in connection with the offer or sale of securities in a capital-raising transaction, and do not directly or indirectly promote or maintain a market for the issuer's securities.

6. Option Provisions.

Each Award Agreement evidencing an Option shall be in such form and shall contain such terms and conditions as the Committee shall deem appropriate. All Options shall be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and a separate certificate or certificates shall be issued for shares purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, then the Option shall be a Nonstatutory Stock Option. The provisions of separate Options need not be identical, but each Award Agreement shall comply with or include (through incorporation of provisions hereof by reference in such Award Agreement or otherwise) the substance of each of the following provisions:

(a) **Term.** No Option shall be exercisable after the expiration of ten (10) years from the date it was granted and no Incentive Stock Option granted to a Ten Percent Shareholder shall be exercisable after the expiration of five (5) years from the date it was granted.

(b) **Exercise Price.** The exercise price of each Option shall be not less than one hundred percent (100%) of the Fair Market Value on the date the Option is granted and the exercise price of each Incentive Stock Option granted to a Ten Percent Shareholder shall be not less than one hundred ten percent (110%) of the Fair Market Value on the date the Option is granted. Notwithstanding the foregoing, an Option may be granted with an exercise price lower than one hundred percent (100%) of the Fair Market Value if such Option is granted pursuant to an assumption or substitution for another option in a manner consistent with the provisions of Section 424(a) of the Code (whether or not such Options are Incentive Stock Options).

(c) **Consideration.** The purchase price of Common Stock acquired pursuant to the exercise of an Option shall be paid to the Company in cash (including by wire

transfer of immediately available funds or by check, bank draft or money order payable to the Company) or, to the extent permitted by applicable law and as determined by the Committee in its sole discretion, by any of the alternative methods of payment set forth below, or any combination of the foregoing. The Committee shall have the authority to grant Options that do not permit any or all of the following alternative methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The alternative methods of payment permitted by this Section 6(c) are:

(i) through a "cashless exercise" pursuant to a program developed under Regulation T (promulgated by the Federal Reserve Board) that, prior to the issuance of the Common Stock issuable upon exercise of the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(ii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iii) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise of the Option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; provided, however, that the Company shall accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued; and provided, further, that shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are reduced to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise and/or (C) shares are withheld to satisfy tax withholding obligations; or

(iv) in any other form of legal consideration that may be acceptable to the Committee in its sole discretion and permissible under applicable law.

The Committee may permit the payment of all or any portion of the purchase price of Common Stock acquired pursuant to the exercise of an Option according to a deferred payment arrangement with the Participant; provided, however, that payment of the Common Stock's "par value," as defined in the Delaware General Corporation Law, shall not be made by deferred payment. In the case of any deferred payment arrangement, interest shall be compounded at least annually and shall be charged at the minimum rate of interest necessary to avoid the treatment as interest, under any applicable provisions of the Code, of any amounts other than amounts stated to be interest under the deferred payment arrangement.

(d) **Transferability of Options.** The Committee may, in its sole discretion, impose such limitations on the transferability of Options as the Committee shall determine. In the absence of such a determination by the Committee to the contrary, the following restrictions on the transferability shall apply to each Option:

(i) **Transfers During Lifetime.** During the lifetime of the Optionholder, an Option shall not be transferable and shall be exercisable by only the Optionholder; provided, however, that the Committee may, in its sole discretion, permit transfer of the Option in a manner that is not prohibited by applicable tax and/or securities laws upon the Optionholder's request. Notwithstanding the foregoing, an Option may be transferred pursuant to a domestic relations order; provided, however, that if an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(ii) **Transfers Upon Death.** The Optionholder may, by delivering written notice to the Company (in a form provided by or otherwise satisfactory to the Company), designate a third party who, in the event of the death of the Optionholder, shall thereafter have the sole right to exercise an Option and receive the Common Stock or other consideration resulting from the exercise thereof. In the absence of such a designation, the Option shall be transferable upon the Optionholder's death only by will or by the laws of descent and distribution.

(e) **Vesting.** The total number of shares of Common Stock subject to an Option may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on performance or other criteria) as the Committee may deem appropriate. The vesting provisions of individual Options may vary. The provisions of this Section 6(e) are subject to any Option provisions governing the minimum number of shares as to which an Option may be exercised.

(f) **Exercisability and Termination.**

(i) **Termination of Continuous Service.** In the event that an Optionholder's Continuous Service terminates (other than for Cause or upon the Optionholder's death or Disability), the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of such termination of Continuous Service) but only within such period of time ending on the earlier of (A) thirty (30) days following the termination of the Optionholder's Continuous Service (or such longer or shorter period specified in the Award Agreement, that, for Options granted prior to the Listing Date, shall not be less than thirty (30) days), or (B) the expiration of the term of the Option as set forth in the Award Agreement. If, after such termination of Continuous Service, the Optionholder does not exercise his or her Option within the time specified in the Award Agreement, the Option shall terminate.

(ii) **Termination for Cause.** In the event that an Optionholder's Continuous Service is terminated for Cause by the Company or any Affiliate, the Option shall no longer be exercisable and shall terminate immediately.

(iii) **Disability of Optionholder.** In the event that an Optionholder's Continuous Service terminates as a result of the Optionholder's Disability, the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of such termination of Continuous Service), but only within such period of time ending on the earlier of (A) the date three (3) months following such termination of Continuous Service (or such longer or shorter period specified in the Award Agreement) or (B) the expiration of the term of the Option as set forth in the Award Agreement. If, after such termination of Continuous Service, the Optionholder does not exercise his or her Option within the time specified herein, the Option shall terminate.

(iv) **Death of Optionholder.** In the event that (A) an Optionholder's Continuous Service terminates as a result of the Optionholder's death or (B) the Optionholder dies within the period (if any) specified in the Award Agreement after the termination of the Optionholder's Continuous Service for a reason other than death, then the Option may be exercised (to the extent the Optionholder was entitled to exercise such Option as of the date of death) by the Optionholder's estate, by a person who acquired the right to exercise the Option by bequest or inheritance or, if applicable, by a person designated to exercise the option upon the Optionholder's death pursuant to Section 6(d)(ii), but only within the period ending on the earlier of (1) the date eleven (11) months following the date of death (or such longer or shorter period specified in the Award Agreement, that, for Options granted prior to the Listing Date, shall not be less than six (6) months) or (2) the expiration of the term of such Option as set forth in the Award Agreement. If, after the Optionholder's death, the Option is not exercised within the time specified herein, the Option shall terminate.

(v) **Extension of Termination Date.** An Award Agreement may provide that if the exercise of the Option following the termination of the Optionholder's Continuous Service (other than for Cause) would be prohibited at any time solely because the issuance of shares would violate the registration requirements under the Securities Act, then the period during which the Optionholder is prevented from exercising the Option solely by the operation of such prohibition shall not be counted for purposes of

calculating the time period following the termination of the Optionholder's Continuous Service during which the Option may be exercised. In no event, however, shall the Option be exercisable after the expiration of the term of the Option.

(g) **Restrictions on Transfer of Shares.** Any shares issued upon exercise of an Option shall be subject to such special forfeiture conditions, rights of repurchase, rights of first refusal, bring-along rights and other transfer restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Award Agreement and shall apply in addition to any restrictions that may apply to holders of shares of Common Stock generally.

7. Stock Appreciation Right Provisions.

Each Award Agreement evidencing an Award of SARs shall be in such form and shall contain such terms and conditions as the Committee shall deem appropriate. The terms and conditions of such Award Agreements may change from time to time, and the terms and conditions of separate Award Agreements need not be identical, but each Award Agreement evidencing an SAR shall comply with or include (through incorporation of provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(a) **Right to Payment.** An SAR shall confer on the Participant to whom it is granted a right to receive, upon exercise thereof, the excess of (i) the Fair Market Value of one share of Stock on the date of exercise over (i) the grant price of the SAR as determined by the Committee.

(b) **Grant Price.** Each Award Agreement evidencing an SAR shall state the grant price per share of Common Stock; provided, however, that the grant price per share of Common Stock subject to an SAR shall not be less than the greater of (i) the par value per share of the Common Stock or (ii) 100% of the Fair Market Value per share of the Common Stock as of the date of grant of the SAR (the "Minimum Grant Price"). In the event an SAR is granted with a grant price less than the Minimum Grant Price, the grant price of such SAR shall be deemed to be the Minimum Grant Price.

(c) **Time and Method of Exercise.** Except as otherwise provided herein, the Committee shall determine, at the date of grant or thereafter, the number of shares of Common Stock to which the SAR relates, the time or times at which and the circumstances under which an SAR may be vested and/or exercised in whole or in part (including based on achievement of performance goals and/or future service requirements), the method of exercise, method of settlement, form of consideration payable upon settlement, method by or forms in which Common Stock (if any) will be delivered to Participants, and any other terms and conditions of any SAR. SARs may be either free-standing or in tandem with other Awards. No SAR may be exercisable for a period of more than ten (10) years following the date of grant of the SAR.

(d) **Termination for Cause.** In the event that a Participant's Continuous Service is terminated for Cause by the Company or any Affiliate, such Participant's SARs shall no longer be exercisable and shall terminate immediately.

(e) **Rights Related to Options.** An SAR granted in connection with an Option shall entitle a Participant, upon exercise, to surrender that Option or any portion thereof, to the extent unexercised, and to receive payment of an amount determined by multiplying (i) the difference obtained by subtracting the exercise price with respect to a share of Common Stock specified in the related Option from the Fair Market Value of a share of Common Stock on the date of exercise of the SAR, by (ii) the number of shares as to which that SAR has been exercised. The Option shall then cease to be exercisable to the extent surrendered. SARs granted in connection with an Option shall be subject to the terms and conditions of the Award Agreement governing the Option, which shall provide that the SAR is exercisable only at such time or times and only to the extent that the related Option is exercisable and shall not be transferable except to the extent that the related Option is transferrable.

8. Restricted Stock Provisions.

Each Award Agreement evidencing Restricted Stock shall be in such form and shall contain such terms and conditions as the Committee shall deem appropriate. The terms and conditions of such Award Agreements may change from time to time, and the terms and conditions of separate Award Agreements need not be identical, but each Award Agreement evidencing Restricted Stock shall comply with or include (through incorporation of provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(a) **Vesting.** Shares of Restricted Stock shall be subject to a vesting schedule or performance vesting conditions to be determined by the Committee and set forth in the applicable Restricted Stock Agreement. The vesting provisions of individual Restricted Stock Awards may vary.

(b) **Termination of Participant's Continuous Service.** Except as otherwise provided in a Restricted Stock Award Agreement, if the recipient's Continuous Service terminates (with or without Cause), all of the shares of Restricted Stock issued pursuant to such Restricted Stock Award that have not vested as of the date of termination shall be immediately forfeited to and reacquired by the Company.

(c) **Restrictions on Transfer of Shares.** Shares of Restricted Stock shall be subject to such special forfeiture conditions, rights of repurchase, rights of first refusal, bring-along rights and other transfer restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Restricted Stock Award Agreement and shall apply in addition to any restrictions that may apply to holders of shares of Common Stock generally.

9. Restricted Stock Unit Provisions.

Each Award Agreement evidencing Restricted Stock Units shall be in such form and shall contain such terms and conditions as the Committee shall deem appropriate. The terms and conditions of such Award Agreements may change from time to time, and the terms and conditions of separate Award Agreements need not be identical, but each Award Agreement evidencing Restricted Stock Units shall comply with or include (through incorporation of provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(a) **Award and Restrictions.** Restricted Stock Units shall be subject to such restrictions (which may include a risk of forfeiture) as the Committee may impose, if any, which restrictions may lapse at the expiration of the deferral period or at earlier specified times (including based on achievement of performance goals and/or future service requirements), separately or in combination, in installments or otherwise, as the Committee may determine.

(b) **Settlement.** Settlement of Restricted Stock Units shall occur upon expiration of the deferral period specified for such Restricted Stock Unit by the Committee (or, if permitted by the Committee, as elected by the Participant). Restricted Stock Units shall be satisfied by the delivery of (i) a number of shares of Common Stock equal to the number of RSUs vesting on such date, or (ii) cash in an amount equal to the Fair Market Value of the specified number of shares of Common Stock covered by the vesting Restricted Stock Units, or a combination thereof, as determined by the Committee at the date of grant or thereafter.

10. Stock Awards. The Committee is authorized to grant a Stock Award under the Plan to any eligible person as a bonus, as additional compensation, or in lieu of cash

compensation the individual is otherwise entitled to receive, in such amounts and subject to such other terms as the Committee in its discretion determines to be appropriate.

11. Dividend Equivalents. The Committee is authorized to grant Dividend Equivalents to an eligible person, entitling the eligible person to receive cash, Common Stock, other Awards, or other property equal in value to dividends paid with respect to a specified number of shares of Common Stock, or other periodic payments. Dividend Equivalents may be awarded on a free-standing basis or in connection with another Award (other than an Award of Options, Restricted Stock or a Stock Award). The Committee may provide that Dividend Equivalents shall be paid or distributed when accrued or at a later specified date, and if distributed at a later date may be deemed to have been reinvested in additional Common Stock, Awards, or other investment vehicles or accrued in a bookkeeping account without interest, and subject to such restrictions on transferability and risks of forfeiture, as the Committee may specify. With respect to Dividend Equivalents granted in connection with another Award, absent a contrary provision in the Award Agreement, such Dividend Equivalents shall be subject to the same restrictions and risk of forfeiture as the Award with respect to which the dividends accrue and shall not be paid unless and until such Award has vested and been earned. Notwithstanding the foregoing, Dividend Equivalents shall only be paid in a manner that is either exempt from or in compliance with Section 409A.

12. Other Stock-Based Awards. The Committee is authorized, subject to limitations under applicable law, to grant to eligible persons such other Awards that may be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, Common Stock, as deemed by the Committee to be consistent with the purposes of this Plan, including without limitation convertible or exchangeable debt securities, other rights convertible or exchangeable into Common Stock, purchase rights for Common Stock, Awards with value and payment contingent upon performance of the Company or any other factors designated by the Committee, and Awards valued by reference to the book value of Common Stock or the value of securities of or the performance of specified subsidiaries of the Company. The Committee shall determine the terms and conditions of such Other Stock-Based Awards. Common Stock delivered pursuant to an Other-Stock Based Award in the nature of a purchase right granted under this Section 12 shall be purchased for such consideration, paid for at such times, by such methods, and in such forms, including, without limitation, cash, Common Stock, other Awards, or other property, as the Committee shall determine.

13. Securities Law Compliance. The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Awards and to issue and sell shares of Common Stock pursuant to such Awards (including upon the exercise of Options); provided, however, that this undertaking shall not require the Company to register, under the Securities Act or any state securities laws, the Plan, any Award or any Common Stock issued or issuable pursuant to any Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful grant of such Awards and the lawful issuance and sale of shares of Common Stock pursuant to such Awards (including upon the exercise of Options), the Company shall be relieved from any liability for failure to grant such Awards or to issue and sell such shares of Common Stock unless and until such authority is obtained.

14. Miscellaneous.

(a) **Use of Proceeds from Awards.** Proceeds from the issuance and sale of Common Stock pursuant to Awards shall constitute general funds of the Company.

(b) **Shareholder Rights.** No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock covered by or subject to an Award unless and until such Participant is duly issued or transferred such shares of Common Stock in accordance with the terms of the Award.

(c) **No Employment or other Service Rights.** Nothing in the Plan, any Award Agreement or any other instrument executed or Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Award was granted, or in any other capacity, or shall affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without Cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate or (iii) the service of a Director pursuant to the Bylaws of the Company and any applicable provisions of the Delaware General Corporation Law.

(d) **Incentive Stock Option $100,000 Limitation.** To the extent that the aggregate Fair Market Value (determined at the time of grant) of the Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and the Affiliates) exceeds one hundred thousand dollars ($100,000), the Options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options.

(e) **Investment Assurances.** The Company may require a Participant, as a condition of being issued an Award or any shares of Common Stock pursuant thereto, to give written assurances satisfactory to the Company (i) as to the Participant's knowledge and experience in financial and business matters (and/or that the Participant will employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters), (ii) that the Participant is capable of evaluating, alone or together with a purchaser representative, the merits and risks of making an investment in the Common Stock and (iii) that the Participant is acquiring the Award and the Common Stock issued or issuable pursuant thereto for the Participant's own account and not with any present intention of selling or otherwise distributing the Award or any such Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative (A) if the issuance of Common Stock has been registered under a then currently effective registration statement under the Securities Act or (B) as to any particular requirement, to the extent that a determination is made by counsel to the Company that such requirement need not be met in the circumstances under the securities laws then applicable. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under any Award as such counsel may deem necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the stock represented thereby.

(f) **Withholding Obligations.** The Company and the Affiliates are authorized to withhold from any Award granted, or any payment relating to an Award, including from a distribution of Common Stock, taxes due or potentially payable in connection with any transaction involving an Award, and to take such other action as the Committee may deem advisable to enable the Company, the Affiliates and Participants to satisfy the payment of withholding taxes and other tax obligations relating to any Award in such amounts as may be determined by the Company. The Committee shall determine, in its sole discretion, the form of payment acceptable for such tax withholding obligations, including the delivery of cash or cash equivalents, Common Stock (including previously owned shares, net settlement, a broker-assisted sale, or other cashless withholding or reduction of the amount of shares otherwise issuable or delivered pursuant to the Award), other property, or any other legal consideration the Committee deems appropriate. If such tax withholding amounts are satisfied through net settlement or previously owned shares, the maximum number of shares of Common Stock that may be so withheld (or surrendered) shall be the number of shares of Stock that have an aggregate Fair Market Value on the date of withholding or repurchase equal to the aggregate amount of such tax liabilities determined based on the greatest withholding rates permitted by applicable law for federal, state, foreign and/or local tax purposes, including payroll taxes, that may be utilized without creating adverse accounting treatment for the Company with respect to such Award, as determined by the Committee.

(g) **Clawback/Recovery.** All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable laws. In addition, the Committee may impose such other clawback, recovery or recoupment provisions on an Award as the Committee determines necessary or appropriate, including, but not limited to, a reacquisition right in respect of previously issued shares of Common Stock upon a Participant's termination for Cause.

15. Adjustments upon Changes in Stock.

(a) **Capitalization Adjustments.** If any change is made in the Common Stock without the receipt of consideration by the Company (through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other transaction not involving the receipt of consideration by the Company), (i) the Plan will be appropriately adjusted in the class(es) and maximum number of securities subject to the Plan pursuant to Section 4(a) and the maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 4(c), and (ii) the outstanding Options will be appropriately adjusted in the class(es) and number of securities and the exercise price per share of stock subject to such Options. The Board, the determination of which shall be final, binding and conclusive, shall make such adjustments. (The conversion of any convertible securities of the Company shall not be treated as a transaction "without receipt of consideration" by the Company.) If, as a result of any such adjustment, one or more classes of stock other than Common Stock are issuable pursuant to Awards, then each reference in the Plan to "Common Stock" shall also be deemed to refer to such other classes of stock.

(b) **Dissolution or Liquidation.** In the event of a dissolution or liquidation of the Company, all outstanding Awards (whether or not then vested) shall be terminated if not exercised or settled in connection with or prior to such event.

16. Change in Control and Other Events.

(a) **Change in Control.** Notwithstanding any other provisions of the Plan or an Award Agreement to the contrary, upon a Change in Control or changes in the outstanding Common Stock by reason of a recapitalization, reorganization, merger, consolidation, combination, exchange or other relevant change in capitalization occurring after the date of the grant of any Award and not otherwise provided for in Section 15(a), the Committee, acting in its sole discretion without the consent or approval of any holder, may effect one or more of the following alternatives, which may vary among individual holders and which may vary among Options, SARs or other Awards held by any individual holder: (i) remove any applicable forfeiture restrictions on any Award; (ii) accelerate the time of exercisability of an Award so that such Award may be exercised in full or in part for a limited period of time on or before a date specified by the Committee, before or after such Change in Control, after which specified date all unexercised Awards and all rights of holders thereunder shall terminate; (iii) provide for a cash payment with respect to outstanding Awards by requiring the mandatory surrender to the Company by selected holders of some or all of the outstanding Awards held by such holders (irrespective of whether such Awards are then vested or exercisable pursuant to the Plan) as of a date, before or after such Change in Control, specified by the Committee, in which event the Committee shall thereupon cancel such Awards (with respect to all shares subject to such Awards) and pay to each holder an amount of cash (or other consideration including securities or other property) per Award (other than a Dividend Equivalent) equal to the Change in Control Price (as defined below), less the exercise price with respect to an Option or SAR, as applicable to such Awards; provided, however, that to the extent the exercise price of an Option or an SAR exceeds the Change in Control Price, such award may be canceled for no consideration; (iv) cancel Awards that are unexercisable or remain subject to a restricted period as of the date of a Change in Control without payment of any consideration to the Participant for such Awards; or (v) make such adjustments to Awards then outstanding as the Committee deems appropriate to reflect such Change in Control (including, but not limited to, (x) the substitution, assumption, or continuation of Awards by the successor company or a parent or subsidiary thereof for new awards, and (y) the adjustment as to the number and price of shares of Common Stock or other consideration subject to such Awards); provided, however, that the Committee may determine in its sole discretion that no adjustment is necessary to Awards then outstanding.

(b) **Change in Control Price.** The "Change in Control Price" shall equal the amount determined in the following clause (i), (ii), (iii), (iv) or (v), whichever is applicable, as follows: (i) the price per share offered to holders of Common Stock in any merger or consolidation, (ii) the per share Fair Market Value of the Common Stock immediately before the Change in Control without regard to assets sold in the Change in Control and assuming the Company has received the consideration paid for the assets in the case of a sale of the assets, (iii) the amount distributed per share of Common Stock in a dissolution transaction, (iv) the price per share offered to holders of Common Stock in any tender offer or exchange offer whereby a Change in Control takes place, or (v) if such Change in Control occurs other than pursuant to a transaction described in clauses (i), (ii), (iii), or (iv) of this Section 16(b), the Fair Market Value per share of the Common Stock that may otherwise be obtained with respect to such Awards or to which such Awards track, as determined by the Committee as of the date determined by the Committee to be the date of cancellation and surrender of such Awards. In the event that the consideration offered to stockholders of the Company in any transaction described in this Section 16(b) or in Section 16(a) consists of anything other than cash, the Committee shall determine the fair cash equivalent of the portion of the consideration offered which is other than cash and such determination shall be binding on all affected Participants to the extent applicable to Awards held by such Participants.

17. Amendment of the Plan and Stock Awards.

(a) **Amendment of Plan.** The Board at any time, and from time to time, may amend the Plan, including without limitation in relation to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A and/or to bring the Plan or Awards granted under the Plan into compliance therewith, subject to the limitations, if any, of applicable law. Except as provided above, no Participant's rights under any Award granted before any amendment of the Plan may be impaired by any such amendment unless (i) the Company requests the consent of the affected Participant to such amendment and (ii) such Participant consents thereto in writing.

(b) **Stockholder Approval.** Except as provided in Section 15(a) relating to capitalization adjustments, no amendment shall be effective unless approved by the stockholders of the Company to the extent stockholder approval is necessary to satisfy the requirements of any applicable law or any applicable listing requirement.

(c) **Amendment of Awards.** The Committee at any time, and from time to time, may amend the terms of any one or more Awards (or the Award Agreements relating thereto), including without limitation to amendments to provide terms more favorable to the applicable Participant than previously provided in the Award Agreement, subject to any specified limitations in the Plan that are not subject to Committee discretion; provided, however, that no Participant's rights under any Award may be impaired by any such amendment unless (i) the Company requests the consent of the affected Participant to such amendment and (ii) such Participant consents thereto in writing. Notwithstanding the foregoing, subject to the limitations of applicable law, if any, the Committee may amend the terms of any one or more Awards without the affected Participants' consent if necessary to maintain the qualified status of such Awards as Incentive Stock Options or to bring such Awards into compliance with Section 409A.

18. Termination or Suspension of the Plan.

(a) **Plan Term.** The Plan shall be of unlimited duration; provided, however, that (i) no Incentive Stock Option shall be granted under the Plan after the ten (10) year

anniversary of the effective date of the Plan, and (ii) the Board may suspend or terminate the Plan at any time. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated, however any Award granted prior to such termination, and the authority of the Board or Committee to amend, alter, adjust, suspend, discontinue, or terminate any such Award or to waive any conditions or rights under such Award in accordance with the terms of this Plan, shall extend beyond such termination date until the final disposition of such Award.

(b) **No Impairment of Rights.** Suspension or termination of the Plan shall not impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

19. Effective Date of Plan.

The Plan shall become effective as determined by the Board, but no Option shall be exercised, and no Award shall be granted, unless and until the Plan has been approved by the stockholders of the Company, which approval shall be within twelve (12) months before or after the date the Plan is adopted by the Board.

20. Compliance with Section 409A.

To the extent that the Committee determines that any Award granted under the Plan is subject to Section 409A, the Award Agreement evidencing such Award shall incorporate the terms and conditions necessary to avoid the consequences described in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and all Award Agreements shall be interpreted in accordance with Section 409A. Notwithstanding any provision of the Plan to the contrary, in the event that the Committee determines that any Award may be subject to Section 409A, the Committee may adopt such amendments to the Plan and the applicable Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to (a) exempt the Award from Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Award or (b) comply with the requirements of Section 409A.

21. Choice of Law.

The law of the State of Delaware shall govern all questions concerning the construction, validity and interpretation of the Plan, without regard to such state's conflict of laws rules.

ASP Isotopes Inc.
2021 Stock Incentive Plan

STOCK OPTION AGREEMENT
(Incentive Stock Option)

Pursuant to the Company's 2021 Stock Incentive Plan (the "Plan"), the Company has granted to the Optionholder an option (the "Option") to purchase the number of shares of the common stock, par value $0.01 per share, of the Company ("Common Stock"), set forth in that certain Stock Option Grant Notice (the "Grant Notice") executed by the Company and the Optionholder as of the Grant Date. Capitalized terms used but not otherwise defined in this Agreement shall have the meanings set forth in the Plan and the Grant Notice, each of which is attached hereto and incorporated herein in their entirety.

The Option is subject to all of the terms and conditions set forth in this Agreement and in each of the Plan, the Grant Notice and the Notice of Exercise attached to the Grant Notice.

1. Number of Shares Subject to the Option.

The number of shares of Common Stock subject to the Option (the "Subject Shares") as of the Grant Date is set forth in the Grant Notice. The number of Subject Shares will be reduced following the Grant Date by the number of shares of Common Stock for which the Option is exercised by the Optionholder. In addition, the number of Subject Shares will be adjusted from time to time upon the occurrence of certain capitalization changes affecting the Common Stock, as provided in Section 15(a) of the Plan.

2. Exercise Price.

The exercise price per share of Common Stock to be paid by the Optionholder upon the exercise of the Option (the "Exercise Price") is set forth in the Grant Notice. The Exercise Price will be adjusted from time to time upon the occurrence of certain capitalization changes affecting the Common Stock, as provided in Section 15(a) of the Plan.

3. Vesting of the Option.

The Optionholder may exercise the Option with respect to only Subject Shares that have vested in accordance with the vesting schedule set forth in the Grant Notice. The Option may not be exercised with respect to Subject Shares that have not vested. The vesting of Subject Shares will cease immediately upon the termination of the Optionholder's Continuous Service for any reason. No Subject Shares will vest in respect of any period between the date of termination of the Optionholder's Continuous Service and the immediately preceding vesting date.

4. Term of the Option.

The Optionholder may exercise the Option only during the term of the Option. The term of the Option begins on the Grant Date and ends on the first to occur of the following dates:

(a) the date on which the Optionholder's Continuous Service is terminated for Cause;

(b) subject to extension pursuant to Section 4(d) and/or Section 5 below, the date that is thirty (30) days after the Optionholder's Continuous Service is terminated (whether by the Optionholder or by the Company or its Affiliates) other than for Cause or due to the death or Disability of the Optionholder;

(c) subject to extension pursuant to Section 4(d) and/or Section 5 below, the date that is three (3) months after the Optionholder's Continuous Service is terminated due to the Disability of the Optionholder;

(d) subject to extension pursuant to Section 5 below, the date that is eleven (11) months after the Optionholder's death if (i) the Optionholder's Continuous Service is terminated due to the death of the Optionholder or (ii) the Optionholder dies during the thirty (30) day period provided in Section 4(b) above or the three (3) month period provided in Section 4(c) above, as applicable;

(e) the date on which the Optionholder transfers or purports to transfer the Option (in whole or in part) in violation of Section 8 below;

(f) the date on which the Optionholder transfers or purports to transfer any shares of Common Stock issued upon exercise of the Option, or any beneficial interest therein, in violation of Section 9 below;

(g) the effective date of a Change in Control if the surviving corporation or acquiring corporation does not assume the Option or substitute similar options for the Option, as further provided in Section 15 below;

(h) the Expiration Date indicated in the Grant Notice; or

(i) the ten (10) year anniversary of the Grant Date.

5. Securities Law Compliance.

Notwithstanding anything to the contrary contained herein or in the Grant Notice, the Optionholder may not exercise the Option unless the shares issuable upon such exercise are then registered under the Securities Act and any applicable state securities or "blue sky" laws or, if such shares are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act and such state laws. The exercise of the Option must also comply with other applicable laws and regulations governing the Company, the Option and the Common Stock, and the Optionholder may not exercise the Option if the Company determines that such exercise would not be in material compliance with such laws and regulations. If the Optionholder is prevented from exercising the Option solely by the operation of this Section 5 during the thirty (30) day period provided in Section 4(b) above, the three (3) month period provided in Section 4(c) above or the eleven (11) month period provided in Section 4(d) above, as applicable, then the period during which the Optionholder is prevented from exercising the Option solely by the operation of this Section 5 shall not be counted for purposes of calculating the time periods set forth in such Section 4(b), Section 4(c) or Section 4(d).

6. Manner of Exercise of the Option.

To exercise the Option (when and to the extent exercisable), the Optionholder must deliver to the Secretary of the Company (or to such other person as the Company may designate), during the Company's regular business hours, (a) a properly completed and duly executed Notice of Exercise (in the form attached to the Grant Notice or as otherwise designated by the Company), (b) an amount equal to the Exercise Price multiplied by the number of Subject Shares for which the Option is exercised, delivered in accordance with Section 7 below, and (c) such additional documents as the Company may then require. The Option may be exercised for only whole shares of Common Stock.

7. Method of Payment.

The aggregate Exercise Price payable upon any exercise of the Option shall be payable to the Company in cash (including by wire transfer of immediately available funds or by check, bank draft or money order payable to the Company) or in any other manner permitted by the Plan and acceptable to the Committee, in its sole discretion, at the time of exercise. Such other manner of payment may include one of the following:

(a) through a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise of the Option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate Exercise Price; provided, however, that the Company shall accept a cash or other payment from the Optionholder to the extent of any remaining balance of the aggregate Exercise Price not satisfied by such reduction in the number of whole shares to be issued; and provided, further, that the number of Subject Shares for which the Option may thereafter be exercised shall be reduced to the extent that (i) the shares issuable upon exercise are reduced to pay the exercise price pursuant to the "net exercise," (ii) shares are delivered to the Optionholder as a result of such exercise and/or (iii) shares are withheld to satisfy tax withholding obligations;

(b) if the Common Stock is, at the time of exercise, publicly traded and quoted regularly in *The Wall Street Journal*, through a "cashless exercise" pursuant to a program developed under Regulation T (promulgated by the Federal Reserve Board) that, prior to the issuance of Common Stock issuable upon such exercise of the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds; or

(c) if the Common Stock is, at the time of exercise, publicly traded and quoted regularly in *The Wall Street Journal*, by Delivery of shares of Common Stock that (i) are already owned by the Optionholder, (ii) either (A) have been held by the Optionholder for the period required to avoid a charge to the Company's reported earnings (generally six months) or (B) were not acquired by the Optionholder, directly or indirectly, from the Company, (iii) are owned by the Optionholder free and clear of any liens, claims, encumbrances or security interests and (iv) are valued at Fair Market Value on the date of such exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time of such exercise, shall include delivery to the Company of the Optionholder's attestation of ownership of such shares of Common Stock in a form approved by the Company. Notwithstanding the foregoing, the aggregate Exercise Price payable upon any exercise of the Option shall not be payable by tender to the Company of Common Stock to the extent such tender would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption or repurchase by the Company of its capital stock.

8. Transferability of the Option.

(a) Transfer During Lifetime. During the lifetime of the Optionholder, the Optionholder may not sell, gift, transfer, assign, hypothecate, pledge, encumber, abandon, contribute, distribute, exchange or otherwise dispose of, whether by contract, operation of law or otherwise (collectively, "transfer"), the Option (in whole or in part) and the Option shall be exercisable by only the Optionholder, except that the Option may be transferred pursuant to a domestic relations order.

(b) Transfer Following Death. The Optionholder may, by delivering written notice to the Company (in a form provided by or otherwise satisfactory to the Company), designate a third party who, in the event of the death of the Optionholder, shall thereafter have the sole right to exercise the Option and receive the Common Stock or other consideration resulting from the exercise thereof. In the absence of such a designation, the Option shall be transferable upon the Optionholder's death only by will or by the laws of descent and distribution.

9. Transferability of Common Stock.

A holder of shares of Common Stock issued upon exercise of the Option (the "Issued Shares"), or any beneficial interest therein (a "Holder"), may not transfer any Issued Shares, or any beneficial interest therein, unless:

(a) the Issued Shares subject to the transfer are then registered under the Securities Act and any applicable state securities or "blue sky" laws or, if such Issued Shares are not then so registered, the Company has determined that such transfer would be exempt from the registration requirements of the Securities Act and such state laws;

(b) such transfer complies with all other applicable laws and regulations and contractual obligations applicable to or binding on the Company, the Common Stock or the Holder;

(c) the transferee (if other than the Company) agrees in writing (in such form as the Company may require) to be bound by the provisions of this Section 9 and of Section 10 through Section 14 below with respect to such Issued Shares, or interest therein, and any subsequent transfer thereof; and

(d) such transfer satisfies one or more of the following conditions:

(i) such transfer is approved in advance by the Board in writing;

(ii) such transfer is made to the Company;

(iii) such transfer is made to (A) any member of the Holder's immediate family (i.e., spouse, lineal descendant, father, mother, brother or sister), (B) any custodian or trustee for the Holder's account and/or the account of one or more members of the Holder's immediate family or (C) any limited partnership of which all of the general partners and limited partners consist of (1) the Holder, (2) one or more members of the Holder's immediate family and/or (3) any trust of which only the Holder or one or more members of the Holder's immediate family are the beneficiaries (such family members, custodians, trustees and limited partnerships are referred to collectively as "Related Persons");

(iv) such transfer is made following the death of the Holder by will or pursuant to the laws of descent and distribution; or

(v) the Holder provides the Company with a Notice of Offer (as defined in Section 10(a) below) and such transfer is permitted by Section 10(e) below.

Any transfer or purported transfer by a Holder of any Issued Shares, or any beneficial interest therein, that is not permitted by this Section 9 shall be null and void, and such Issued Shares (together with any other Issued Shares held by such Holder) shall thereupon become subject to the Company's right of repurchase pursuant to Section 11 below.

10. Right of First Refusal.

(a) Notice of Offer. A Holder may at any time, and from time to time, provide the Company with a written notice (a "Notice of Offer") that the Holder desires to transfer all of any portion of the Issued Shares to a third party pursuant to a *bona fide* written offer (the "Offer"), a copy of which shall be enclosed with the Notice of Offer. The Notice of Offer shall set forth the number of Issued Shares that the Holder desires to sell (the "Offered Shares"), the name of the person to whom the Holder desires to make such sale (the "Transferee"), the form and amount of consideration that has been offered in connection with the Offer and the other material terms and conditions of the Offer. The Notice of Offer shall also set forth the Holder's irrevocable offer to sell the Offered Shares to the Company for the lesser of (i) the aggregate purchase price set forth in the Offer or (ii) the aggregate Fair Market Value of the Offered Shares as of the date of the Notice of Offer (such lesser amount, the "Offer Price"), in accordance with this Section 10.

(b) Company Right of Purchase. Upon receipt of a Notice of Offer, the Company shall have the right and option (but not the obligation) to purchase all (but not less than all) of the Offered Shares for the Offer Price in accordance with this Section 10. The Company will be entitled to exercise this right at any time during the period (the "Offer Period") beginning on the date the Notice of Offer is delivered to the Secretary of the Company and ending on the thirtieth (30th) day thereafter; provided, however, that if non-cash consideration is specified in the Offer, the end of the Offer Period will be tolled until such later date that is ten (10) days after the final determination of the fair market value of such non-cash consideration pursuant to Section 10(f) below.

(c) Exercise of Purchase Right. To exercise such purchase right, the Company must provide the Holder with a notice of exercise (an "Exercise Notice") during the Offer Period. The Exercise Notice shall state that the Company is exercising its right and option to purchase from the Holder all (but not less than all) of the Offered Shares for the Offer Price. The Exercise Notice shall also set forth the Fair Market Value of the Offered Shares as of the date of the Notice of Offer (determined in accordance with the Plan), the Offer Price and the date on which the purchase of the Offered Shares will be settled (which date shall be no later than ten (10) days after the Exercise Notice is delivered to the Holder).

(d) Closing of Purchase. The settlement of the Company's purchase of the Offered Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing the Offered Shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the Offer Price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

(e) Conditions of Permitted Transfer. If the Company does not provide the Holder with an Exercise Notice during the Offer Period pursuant to Section 10(c) above (or if the Company timely provides the Holder with an Exercise Notice but does not timely consummate the purchase of the Offered Shares pursuant to Section 10(d) above), the Holder may sell the Offered Shares to the Transferee during the sixty (60) day period commencing on the expiration of the Offer Period on the terms and conditions specified in the Offer.

(f) Valuation of Non-Cash Consideration. If the consideration that has been offered in connection with the Offer includes any non-cash consideration, the dollar value of such non-cash consideration for purposes of calculating the Offer Price will be its fair market value, as reasonably determined by the Board in good faith as soon as

practicable following the Company's receipt of the Notice of Offer.

11. Rights of Repurchase.

(a) Triggering Events. The Company shall have the right and option (but not the obligation) to purchase all (or any lesser portion that the Company may elect) of the Issued Shares held by a Holder from such Holder in any of the following circumstances:

(i) if the Holder is the Optionholder (or a Related Person of the Optionholder), upon the termination of the Continuous Service of the Optionholder for Cause;

(ii) if the Holder is the Optionholder (or a Related Person of the Optionholder), upon the termination of the Continuous Service of the Optionholder for any reason other than for Cause (which is covered by clause (i) above) or due to the death of the Optionholder (which is covered by clause (v) below);

(iii) if the Holder is the Optionholder (or a Related Person of the Optionholder), upon the transfer or purported transfer of the Option (in whole or in part) by the Optionholder in violation of Section 8;

(iv) upon the transfer or purported transfer of any Issued Shares, or any beneficial interest therein, by the Holder (or a Related Person of the Holder) in violation of Section 9; or

(v) upon any involuntary transfer of any Issued Shares, or any beneficial interest therein, by the Holder (whether upon the death, divorce or bankruptcy of the Holder or for any other reason), other than a transfer made upon the death of the Holder by will or pursuant to the laws of descent and distribution if such transfer satisfies the conditions set forth in Section 9; provided, however, that rights of repurchase pursuant to this clause (v) shall extend to only the Issued Shares that are subject to such involuntary transfer (and not to any other Issued Shares of the Holder).

(b) Exercise of Repurchase Right. The Company will be entitled to exercise a repurchase right pursuant to Section 11(a) at any time prior to the date that is twelve (12) months after the later of (i) the date on which the Company receives notice of (or the President or the Secretary of the Company otherwise has actual knowledge of) the events giving rise to such repurchase right or (ii) the latest date on which the Option is exercised for any of the shares of Common Stock that are subject to such repurchase right (the "Repurchase Period").

(c) Purchase Price Determination. The purchase price payable by the Company for each Issued Share for which it exercises a repurchase right pursuant to this Section 11 shall be as follows:

(i) if the repurchase right arises under Section 11(a)(i), Section 11(a)(iii) or Section 11(a)(iv), the purchase price shall be the lesser of (A) the Exercise Price, as adjusted pursuant to Section 15(a) of the Plan, and (B) the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right; and

(ii) if the repurchase right arises under Section 11(a)(ii) or Section 11(a)(v), the purchase price shall be the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right.

(d) Exercise of Repurchase Right. To exercise such repurchase right, the Company must provide the Holder with a notice of exercise (a "Repurchase Notice") during the Repurchase Period. The Repurchase Notice shall state that the Company is exercising its repurchase right, the number of Issued Shares for which the Company is exercising its repurchase right, the purchase price payable by the Company for such shares (determined in accordance with Section 11(c)) and the date on which the repurchase of such shares will be settled (which date shall be no later than thirty (30) days after the Repurchase Notice is delivered to the Holder).

(e) Closing of Repurchase. The settlement of the Company's repurchase of such Issued Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing such shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the purchase price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

12. Bring Along Rights.

(a) Approved Sale Covenants. If the Company provides written notice to a Holder that a Sale of the Company (as defined below) has been approved by a majority of the Board (an "Approved Sale"), each Holder shall (i) vote for such Approved Sale at any meeting of the stockholders of the Company or execute a written consent in lieu of such meeting to consent to and approve such Approved Sale (to the extent any such vote or consent is required to effect the Approved Sale or is otherwise desired by the Company), (ii) waive any dissenters' rights, appraisal rights and other similar rights with respect to the Approved Sale and otherwise raise no objections against such Approved Sale or the process by which it was arranged, (iii) cooperate fully with the Company (and the purchasers) to effectuate the Approved Sale and (iv) execute and deliver such documents and instruments, and take such other actions, as the Company (and the purchasers) may reasonably request to effect the Approved Sale, including, without limitation, the execution of any merger, sale, redemption or other similar agreement and the making of customary representations, warranties and indemnifications (including participating in any escrow arrangements and similar arrangements). As used herein, "Sale of the Business" shall mean any transaction or series of related transactions (whether structured as a stock sale, recapitalization, merger, consolidation, reorganization, asset sale, joint venture or otherwise) negotiated on an arm's-length basis that results, directly or indirectly, in the sale or transfer of all or substantially all of the assets of the Company or eighty percent (80%) of more of the shares of capital stock of the Company to an unaffiliated third party.

(b) Allocation of Liability. In connection with an Approved Sale, each Holder agrees to be severally liable (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) for any indemnification or other obligations of the stockholders of the Company (through an acquisition agreement, contribution agreement or as otherwise requested by the Company), except that (i) the Holder shall not be liable for any obligations that relate specifically to another stockholder (such as indemnification with respect to representations and warranties given by such other stockholder regarding such other stockholder's title to and ownership of capital stock) and (ii) the Holder may be solely liable for any obligations that relate specifically to such Holder.

(c) Conditions to Covenants. The covenants and obligations of a Holder with respect to an Approved Sale are subject to the conditions that (i) the consideration payable in connection with the Approved Sale and available for distribution to the stockholders of the Company must be allocated among such stockholders in accordance with the liquidation priorities set forth in the Certificate of Incorporation of the Company (as it may be amended and in effect from time to time) and (ii) each holder of a particular class or series of capital stock of the Company receives the same form and amount of consideration per share (and if any holder of a particular class or series of capital stock is given an option as to the form or amount of consideration to be received, all holders of such class or series must be given the same option).

(d) Purchaser Representative. If the Company enters into any negotiation or transaction for which Rule 506 promulgated by the Securities and Exchange Commission (the "SEC") or any similar rule then in effect may be available, the Holder (if not then an "accredited investor" within the meaning of Rule 501(a) promulgated by the SEC) will, at the request of the Company, appoint a purchaser representative (as such term is defined in Rule 501 promulgated by the SEC) approved by the Company and the Company will pay the fees of such purchaser representative. If the Holder declines to appoint the purchaser representative approved by the Company, the Holder must appoint another purchaser representative and will be solely responsible for the fees of the purchaser representative so appointed.

(e) Sale Expenses. The Holder will bear his, her or its *pro rata* share (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) of the reasonable costs of any Approved Sale (but only if the Approved Sale is actually consummated).

(f) Proxy Granted. For the purpose of enforcing the Holder's obligations pursuant to this Section 12, each Holder hereby grants to the President of the Company, with respect to all of such Holder's shares of capital stock of the Company entitled to vote, an irrevocable proxy (which is coupled with an interest) for the term of this Section 12 to act in such Holder's name, place and stead, as such Holder's true and lawful proxy and attorney-in-fact, to (i) vote such shares of capital stock at any annual, special or other meeting of the stockholders of the Company and at any adjournment thereof or pursuant to any consent in lieu of a meeting, or otherwise, in favor of an Approved Sale and (ii) execute such documents and instruments, and take such other actions, as the Company may deem necessary or advisable to consummate an Approved Sale and to effect the distribution of the net proceeds thereof, all with the full power and authority to do and perform everything proper and necessary or advisable to carry out and execute this proxy and power of attorney to the same extent as such Holder could do if personally present and acting in the premises.

13. Termination of Rights; Legends.

(a) Termination of Certain Provisions upon IPO. Section 9, Section 10, Section 11 and Section 12 shall terminate immediately upon the closing of, and shall not be applicable to, the Company's first firm commitment underwritten public offering of its Common Stock pursuant to a registration statement under the Securities Act (excluding registration statements relating to employee benefit plans or with respect to corporate reorganizations or other transactions under Rule 145 of the Securities Act) in which the gross public offering proceeds to the Company are not less than twenty-five million dollars ($25,000,000).

(b) Required Certificate Legends. Each certificate representing Issued Shares shall bear on its face the following legend so long as Section 9, Section 10, Section 11 and Section 12 remain in effect:

> The shares of Stock represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or under the securities laws of any state or any other jurisdiction, and may not be offered for sale, sold or otherwise transferred except pursuant to an effective registration statement under the Securities Act and applicable state securities laws, or pursuant to an exemption from registration thereunder, the availability of which is to be established to the satisfaction of the corporation.

> The shares of stock represented by this certificate are subject to certain restrictions on transfer and to certain agreements relating to the voting and disposition of such shares pursuant to the terms of a Stock Option Agreement between the issuer of such shares and the initial holder of such shares. A copy of such restrictions and agreements will be furnished by the issuer to the record holder of this certificate without charge upon written request to the issuer at its principal place of business or registered office.

14. Market Stand Off.

Each Holder agrees that the Company (or a representative of the underwriters) may, in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, require that such Holder not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to, any shares of Common Stock or other securities of the Company held by such Holder, for a period of time specified by the underwriter(s) (not to exceed one hundred eighty (180) days) following the effective date of the registration statement of the Company filed under the Securities Act. Each such Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenants, the Company may impose stop-transfer instructions with respect to each such Holder's Common Stock or other securities of the Company until the end of such period.

15. Change in Control.

In connection with any Change in Control, the surviving corporation or acquiring corporation may assume the Option or substitute similar options for the Option (including options to acquire the consideration that would have been received by the Optionholder had he or she exercised the Option immediately prior to the consummation of such Change in Control transaction). If such surviving corporation or acquiring corporation does not assume the Option or substitute similar options for the Option, then (a) if the Optionholder's Continuous Service has not terminated prior to the effective time of the Change in Control, the vesting of the Option shall be accelerated in full and the Option may be exercised in connection with the Change in Control transaction and (b) the Option, if not exercised prior to or in connection with the Change in Control transaction, shall terminate.

16. Incentive Stock Option Provisions.

As provided in the Plan, to the extent that the aggregate Fair Market Value (determined at the time of grant) of stock with respect to which the Option, plus all other Incentive Stock Options held by the Optionholder, are exercisable for the first time by the Optionholder during any calendar year (under all plans of the Company and its Affiliates) exceeds One Hundred Thousand Dollars ($100,000), the options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options. By exercising the Option, the Optionholder agrees that he or she will notify the Company in writing within fifteen (15) days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of the Option that occurs within two (2) years after the Grant Date or within one (1) year after such shares of Common Stock are issued upon exercise of the Option.

17. Not an Employment or Service Contract.

This Agreement is not an employment or service contract. Nothing in this Agreement shall be deemed to create any obligation of the Optionholder to continue in the employ or service of the Company (or an Affiliate) or any obligation of the Company (or an Affiliate) to continue the Optionholder's employment or engagement.

18. Withholding Obligations.

The Optionholder hereby authorizes the Company to withhold from payroll and any other amounts payable to the Optionholder, and otherwise agrees to make adequate provision for and pay, any sums required to satisfy any federal, state, local and foreign tax withholding obligations of the Company that arise in connection with the Option and the Issued Shares, including, without limitation, obligations arising upon (a) the exercise of the Option and issuance of the Issued Shares, (b) the lapse of any substantial risk of forfeiture to which the Subject Shares are subject, (c) the transfer (as permitted by this Agreement), in whole or in part, of the Option or any Issued Shares or (d) the operation of any law or regulation providing for the imputation of interest. The Company may, in its sole discretion, permit the Optionholder to enter into alternative arrangements to provide for the payment of such withholding obligations, including by means of a "cashless exercise" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board.

19. Notices.

Any notices provided for in this Agreement or the Plan shall be given in writing and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to any Holder, five (5) days after deposit in the United States mail, postage prepaid, addressed to such Holder at the last address provided to the Company.

20. Governing Plan Document.

The Option is subject to all of the provisions of the Plan and is further subject to all interpretations, amendments, rules and regulations that may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan shall control.

By signing the Grant Notice or otherwise accepting the Option and any shares of Common Stock issuable upon exercise of the Option, the Optionholder agrees to be bound by terms of the Agreement and the Plan.

Asp isotopes inc.
2021 stock incentive plan

Stock option agreement
(Nonqualified Stock Option)

Pursuant to the Company's 2021 Stock Incentive Plan (the "Plan"), the Company has granted to the Optionholder an option (the "Option") to purchase the number of shares of the common stock, par value $0.01 per share, of the Company ("Common Stock"), set forth in that certain Stock Option Grant Notice (the "Grant Notice") executed by the Company and the Optionholder as of the Grant Date. Capitalized terms used but not otherwise defined in this Agreement shall have the meanings set forth in the Plan and the Grant Notice, each of which is attached hereto and incorporated herein in their entirety.

The Option is subject to all of the terms and conditions set forth in this Agreement and in each of the Plan, the Grant Notice and the Notice of Exercise attached to the Grant Notice.

1. Number of Shares Subject to the Option.

The number of shares of Common Stock subject to the Option (the "Subject Shares") as of the Grant Date is set forth in the Grant Notice. The number of Subject Shares will be reduced following the Grant Date by the number of shares of Common Stock for which the Option is exercised by the Optionholder. In addition, the number of Subject Shares will be adjusted from time to time upon the occurrence of certain capitalization changes affecting the Common Stock, as provided in Section 15(a) of the Plan.

2. Exercise Price.

The exercise price per share of Common Stock to be paid by the Optionholder upon the exercise of the Option (the "Exercise Price") is set forth in the Grant Notice. The Exercise Price will be adjusted from time to time upon the occurrence of certain capitalization changes affecting the Common Stock, as provided in Section 15(a) of the Plan.

3. Vesting of the Option.

The Optionholder may exercise the Option with respect to only Subject Shares that have vested in accordance with the vesting schedule set forth in the Grant Notice. The Option may not be exercised with respect to Subject Shares that have not vested. The vesting of Subject Shares will cease immediately upon the termination of the Optionholder's Continuous Service for any reason. No Subject Shares will vest in respect of any period between the date of termination of the Optionholder's Continuous Service and the immediately preceding vesting date.

4. Term of the Option.

The Optionholder may exercise the Option only during the term of the Option. The term of the Option begins on the Grant Date and ends on the first to occur of the following dates:

(a) the date on which the Optionholder's Continuous Service is terminated for Cause;

(b) subject to extension pursuant to Section 4(d) and/or Section 5 below, the date that is ninety (90) days after the Optionholder's Continuous Service is terminated (whether by the Optionholder or by the Company or its Affiliates) other than for Cause or due to the death or Disability of the Optionholder;

(c) subject to extension pursuant to Section 4(d) and/or Section 5 below, the date that is twelve (12) months after the Optionholder's Continuous Service is terminated due to the Disability of the Optionholder;

(d) subject to extension pursuant to Section 5 below, the date that is twelve (12) months after the Optionholder's death if (i) the Optionholder's Continuous Service is terminated due to the death of the Optionholder or (ii) the Optionholder dies during the ninety (90) day period provided in Section 4(b) above;

(e) the date on which the Optionholder transfers or purports to transfer the Option (in whole or in part) in violation of Section 8 below;

(f) the date on which the Optionholder transfers or purports to transfer any shares of Common Stock issued upon exercise of the Option, or any beneficial interest therein, in violation of Section 9 below;

(g) the effective date of a Change in Control if the surviving corporation or acquiring corporation does not assume the Option or substitute similar options for the Option, as further provided in Section 15 below;

(h) the Expiration Date indicated in the Grant Notice; or

(i) the ten (10) year anniversary of the Grant Date.

5. Securities Law Compliance.

Notwithstanding anything to the contrary contained herein or in the Grant Notice, the Optionholder may not exercise the Option unless the shares issuable upon such exercise are then registered under the Securities Act and any applicable state securities or "blue sky" laws or, if such shares are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act and such state laws. The exercise of the Option must also comply with other applicable laws and regulations governing the Company, the Option and the Common Stock, and the Optionholder may not exercise the Option if the Company determines that such exercise would not be in material compliance with such laws and regulations. If the Optionholder is prevented from exercising the Option solely by the operation of this Section 5 during the thirty (30) day period provided in Section 4(b) above, the three (3) month period provided in Section 4(c) above or the eleven (11) month period provided in Section 4(d) above, as applicable, then the period during which the Optionholder is prevented from exercising the Option solely by the operation of this Section 5 shall not be counted for purposes of calculating the time periods set forth in such Section 4(b), Section 4(c) or Section 4(d).

6. Manner of Exercise of the Option.

To exercise the Option (when and to the extent exercisable), the Optionholder must deliver to the Secretary of the Company (or to such other person as the Company may designate), during the Company's regular business hours, (a) a properly completed and duly executed Notice of Exercise (in the form attached to the Grant Notice or as otherwise designated by the Company), (b) an amount equal to the Exercise Price multiplied by the number of Subject Shares for which the Option is exercised, delivered in accordance with Section 7 below, and (c) such additional documents as the Company may then require. The Option may be exercised for only whole shares of Common Stock.

7. Method of Payment.

The aggregate Exercise Price payable upon any exercise of the Option shall be payable to the Company in cash (including by wire transfer of immediately available funds or by check, bank draft or money order payable to the Company) or in any other manner permitted by the Plan and acceptable to the Committee, in its sole discretion, at the time of exercise. Such other manner of payment may include one of the following:

(a) through a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise of the Option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate Exercise Price; provided, however, that the Company shall accept a cash or other payment from the Optionholder to the extent of any remaining balance of the aggregate Exercise Price not satisfied by such reduction in the number of whole shares to be issued; and provided, further, that the number of Subject Shares for which the Option may thereafter be exercised shall be reduced to the extent that (i) the shares issuable upon exercise are reduced to pay the exercise price pursuant to the "net exercise," (ii) shares are delivered to the Optionholder as a result of such exercise and/or (iii) shares are withheld to satisfy tax withholding obligations;

(b) if the Common Stock is, at the time of exercise, publicly traded and quoted regularly in *The Wall Street Journal*, through a "cashless exercise" pursuant to a program developed under Regulation T (promulgated by the Federal Reserve Board) that, prior to the issuance of Common Stock issuable upon such exercise of the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds; or

(c) if the Common Stock is, at the time of exercise, publicly traded and quoted regularly in *The Wall Street Journal*, by Delivery of shares of Common Stock that (i) are already owned by the Optionholder, (ii) either (A) have been held by the Optionholder for the period required to avoid a charge to the Company's reported earnings (generally six months) or (B) were not acquired by the Optionholder, directly or indirectly, from the Company, (iii) are owned by the Optionholder free and clear of any liens, claims, encumbrances or security interests and (iv) are valued at Fair Market Value on the date of such exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time of such exercise, shall include delivery to the Company of the Optionholder's attestation of ownership of such shares of Common Stock in a form approved by the Company. Notwithstanding the foregoing, the aggregate Exercise Price payable upon any exercise of the Option shall not be payable by tender to the Company of Common Stock to the extent such tender would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption or repurchase by the Company of its capital stock.

8. Transferability of the Option.

(a) Transfer During Lifetime. During the lifetime of the Optionholder, the Optionholder may not sell, gift, transfer, assign, hypothecate, pledge, encumber, abandon, contribute, distribute, exchange or otherwise dispose of, whether by contract, operation of law or otherwise (collectively, "transfer"), the Option (in whole or in part) and the Option shall be exercisable by only the Optionholder, except that the Option may be transferred pursuant to a domestic relations order.

(b) Transfer Following Death. The Optionholder may, by delivering written notice to the Company (in a form provided by or otherwise satisfactory to the Company), designate a third party who, in the event of the death of the Optionholder, shall thereafter have the sole right to exercise the Option and receive the Common Stock or other consideration resulting from the exercise thereof. In the absence of such a designation, the Option shall be transferable upon the Optionholder's death only by will or by the laws of descent and distribution.

9. Transferability of Common Stock.

A holder of shares of Common Stock issued upon exercise of the Option (the "Issued Shares"), or any beneficial interest therein (a "Holder"), may not transfer any Issued Shares, or any beneficial interest therein, unless:

(a) the Issued Shares subject to the transfer are then registered under the Securities Act and any applicable state securities or "blue sky" laws or, if such Issued Shares are not then so registered, the Company has determined that such transfer would be exempt from the registration requirements of the Securities Act and such state laws;

(b) such transfer complies with all other applicable laws and regulations and contractual obligations applicable to or binding on the Company, the Common Stock or the Holder;

(c) the transferee (if other than the Company) agrees in writing (in such form as the Company may require) to be bound by the provisions of this Section 9 and of Section 10 through Section 14 below with respect to such Issued Shares, or interest therein, and any subsequent transfer thereof; and

(d) such transfer satisfies one or more of the following conditions:

(i) such transfer is approved in advance by the Board in writing;

(ii) such transfer is made to the Company;

(iii) such transfer is made to (A) any member of the Holder's immediate family (i.e., spouse, lineal descendant, father, mother, brother or sister), (B) any custodian or trustee for the Holder's account and/or the account of one or more members of the Holder's immediate family or (C) any limited partnership of which all of the general partners and limited partners consist of (1) the Holder, (2) one or more members of the Holder's immediate family and/or (3) any trust of which only the Holder or one or more members of the Holder's immediate family are the beneficiaries (such family members, custodians, trustees and limited partnerships are referred to collectively as "Related Persons");

(iv) such transfer is made following the death of the Holder by will or pursuant to the laws of descent and distribution; or

(v) the Holder provides the Company with a Notice of Offer (as defined in Section 10(a) below) and such transfer is permitted by Section 10(e) below.

Any transfer or purported transfer by a Holder of any Issued Shares, or any beneficial interest therein, that is not permitted by this Section 9 shall be null and void, and such Issued Shares (together with any other Issued Shares held by such Holder) shall thereupon become subject to the Company's right of repurchase pursuant to Section 11 below.

10. Right of First Refusal.

(a) Notice of Offer. A Holder may at any time, and from time to time, provide the Company with a written notice (a "Notice of Offer") that the Holder desires to transfer all of any portion of the Issued Shares to a third party pursuant to a *bona fide* written offer (the "Offer"), a copy of which shall be enclosed with the Notice of Offer. The Notice of Offer shall set forth the number of Issued Shares that the Holder desires to sell (the "Offered Shares"), the name of the person to whom the Holder desires to make such sale (the "Transferee"), the form and amount of consideration that has been offered in connection with the Offer and the other material terms and conditions of the Offer. The Notice of Offer shall also set forth the Holder's irrevocable offer to sell the Offered Shares to the Company for the lesser of (i) the aggregate purchase price set forth in the Offer or (ii) the aggregate Fair Market Value of the Offered Shares as of the date of the Notice of Offer (such lesser amount, the "Offer Price"), in accordance with this Section 10.

(b) Company Right of Purchase. Upon receipt of a Notice of Offer, the Company shall have the right and option (but not the obligation) to purchase all (but not less than all) of the Offered Shares for the Offer Price in accordance with this Section 10. The Company will be entitled to exercise this right at any time during the period (the "Offer Period") beginning on the date the Notice of Offer is delivered to the Secretary of the Company and ending on the thirtieth (30th) day thereafter; provided, however, that if non-cash consideration is specified in the Offer, the end of the Offer Period will be tolled until such later date that is ten (10) days after the final determination of the fair market value of such non-cash consideration pursuant to Section 10(f) below.

(c) Exercise of Purchase Right. To exercise such purchase right, the Company must provide the Holder with a notice of exercise (an "Exercise Notice") during the Offer Period. The Exercise Notice shall state that the Company is exercising its right and option to purchase from the Holder all (but not less than all) of the Offered Shares for the Offer Price. The Exercise Notice shall also set forth the Fair Market Value of the Offered Shares as of the date of the Notice of Offer (determined in accordance with the Plan), the Offer Price and the date on which the purchase of the Offered Shares will be settled (which date shall be no later than ten (10) days after the Exercise Notice is delivered to the Holder).

(d) Closing of Purchase. The settlement of the Company's purchase of the Offered Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing the Offered Shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the Offer Price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

(e) Conditions of Permitted Transfer. If the Company does not provide the Holder with an Exercise Notice during the Offer Period pursuant to Section 10(c) above (or if the Company timely provides the Holder with an Exercise Notice but does not timely consummate the purchase of the Offered Shares pursuant to Section 10(d) above), the Holder may sell the Offered Shares to the Transferee during the sixty (60) day period commencing on the expiration of the Offer Period on the terms and conditions specified in the Offer.

(f) Valuation of Non-Cash Consideration. If the consideration that has been offered in connection with the Offer includes any non-cash consideration, the dollar value of such non-cash consideration for purposes of calculating the Offer Price will be its fair market value, as reasonably determined by the Board in good faith as soon as practicable following the Company's receipt of the Notice of Offer.

11. Rights of Repurchase.

(a) Triggering Events. The Company shall have the right and option (but not the obligation) to purchase all (or any lesser portion that the Company may elect) of the Issued Shares held by a Holder from such Holder in any of the following circumstances:

(i) if the Holder is the Optionholder (or a Related Person of the Optionholder), upon the termination of the Continuous Service of the Optionholder for Cause;

(ii) if the Holder is the Optionholder (or a Related Person of the Optionholder), upon the termination of the Continuous Service of the Optionholder for any reason other than for Cause (which is covered by clause (i) above) or due to the death of the Optionholder (which is covered by clause (v) below);

(iii) if the Holder is the Optionholder (or a Related Person of the Optionholder), upon the transfer or purported transfer of the Option (in whole or in part) by the Optionholder in violation of Section 8;

(iv) upon the transfer or purported transfer of any Issued Shares, or any beneficial interest therein, by the Holder (or a Related Person of the Holder) in violation of Section 9; or

(v) upon any involuntary transfer of any Issued Shares, or any beneficial interest therein, by the Holder (whether upon the death, divorce or bankruptcy of the Holder or for any other reason), other than a transfer made upon the death of the Holder by will or pursuant to the laws of descent and distribution if such transfer satisfies the conditions set forth in Section 9; provided, however, that rights of repurchase pursuant to this clause (v) shall extend to only the Issued Shares that are subject to such involuntary transfer (and not to any other Issued Shares of the Holder).

(b) Exercise of Repurchase Right. The Company will be entitled to exercise a repurchase right pursuant to Section 11(a) at any time prior to the date that is twelve (12) months after the later of (i) the date on which the Company receives notice of (or the President or the Secretary of the Company otherwise has actual knowledge of) the events giving rise to such repurchase right or (ii) the latest date on which the Option is exercised for any of the shares of Common Stock that are subject to such repurchase right (the "Repurchase Period").

(c) Purchase Price Determination. The purchase price payable by the Company for each Issued Share for which it exercises a repurchase right pursuant to this Section 11 shall be as follows:

(i) if the repurchase right arises under Section 11(a)(i), Section 11(a)(iii) or Section 11(a)(iv), the purchase price shall be the lesser of (A) the Exercise Price, as adjusted pursuant to Section 15(a) of the Plan, and (B) the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right; and

(ii) if the repurchase right arises under Section 11(a)(ii) or Section 11(a)(v), the purchase price shall be the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right.

(d) Exercise of Repurchase Right. To exercise such repurchase right, the Company must provide the Holder with a notice of exercise (a "Repurchase Notice") during the Repurchase Period. The Repurchase Notice shall state that the Company is exercising its repurchase right, the number of Issued Shares for which the Company is exercising its repurchase right, the purchase price payable by the Company for such shares (determined in accordance with Section 11(c)) and the date on which the repurchase of such shares will be settled (which date shall be no later than thirty (30) days after the Repurchase Notice is delivered to the Holder).

(e) Closing of Repurchase. The settlement of the Company's repurchase of such Issued Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing such shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the purchase price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

12. Bring Along Rights.

(a) Approved Sale Covenants. If the Company provides written notice to a Holder that a Sale of the Company (as defined below) has been approved by a majority of the Board (an "Approved Sale"), each Holder shall (i) vote for such Approved Sale at any meeting of the stockholders of the Company or execute a written consent in lieu of such meeting to consent to and approve such Approved Sale (to the extent any such vote or consent is required to effect the Approved Sale or is otherwise desired by the Company), (ii) waive any dissenters' rights, appraisal rights and other similar rights with respect to the Approved Sale and otherwise raise no objections against such Approved Sale or the process by which it was arranged, (iii) cooperate fully with the Company (and the purchasers) to effectuate the Approved Sale and (iv) execute and deliver such documents and instruments, and take such other actions, as the Company (and the purchasers) may reasonably request to effect the Approved Sale, including, without limitation, the execution of any merger, sale, redemption or other similar agreement and the making of customary representations, warranties and indemnifications (including participating in any escrow arrangements and similar arrangements). As used herein, "Sale of the Business" shall mean any transaction or series of related transactions (whether structured as a stock sale, recapitalization, merger, consolidation, reorganization, asset sale, joint venture or otherwise) negotiated on an arm's-length basis that results, directly or indirectly, in the sale or transfer of all or substantially all of the assets of the Company or eighty percent (80%) of more of the shares of capital stock of the Company to an unaffiliated third party.

(b) Allocation of Liability. In connection with an Approved Sale, each Holder agrees to be severally liable (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) for any indemnification or other obligations of the stockholders of the Company (through an acquisition agreement, contribution agreement or as otherwise requested by the Company), except that (i) the Holder shall not be liable for any obligations that relate specifically to another stockholder (such as indemnification with respect to representations and warranties given by such other stockholder regarding such other stockholder's title to and ownership of capital stock) and (ii) the Holder may be solely liable for any obligations that relate specifically to such Holder.

(c) Conditions to Covenants. The covenants and obligations of a Holder with respect to an Approved Sale are subject to the conditions that (i) the consideration payable in connection with the Approved Sale and available for distribution to the stockholders of the Company must be allocated among such stockholders in accordance with the liquidation priorities set forth in the Certificate of Incorporation of the Company (as it may be amended and in effect from time to time) and (ii) each holder of a particular class or series of capital stock of the Company receives the same form and amount of consideration per share (and if any holder of a particular class or series of capital stock is given an option as to the form or amount of consideration to be received, all holders of such class or series must be given the same option).

(d) Purchaser Representative. If the Company enters into any negotiation or transaction for which Rule 506 promulgated by the Securities and Exchange Commission (the "SEC") or any similar rule then in effect may be available, the Holder (if not then an "accredited investor" within the meaning of Rule 501(a) promulgated by the SEC) will, at the request of the Company, appoint a purchaser representative (as such term is defined in Rule 501 promulgated by the SEC) approved by the Company and the Company will pay the fees of such purchaser representative. If the Holder declines to appoint the purchaser representative approved by the Company, the Holder must appoint another purchaser representative and will be solely responsible for the fees of the purchaser representative so appointed.

(e) Sale Expenses. The Holder will bear his, her or its *pro rata* share (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) of the reasonable costs of any Approved Sale (but only if the Approved Sale is actually consummated).

(f) Proxy Granted. For the purpose of enforcing the Holder's obligations pursuant to this Section 12, each Holder hereby grants to the President of the Company, with respect to all of such Holder's shares of capital stock of the Company entitled to vote, an irrevocable proxy (which is coupled with an interest) for the term of this Section 12 to act in such Holder's name, place and stead, as such Holder's true and lawful proxy and attorney-in-fact, to (i) vote such shares of capital stock at any annual, special or other meeting of the stockholders of the Company and at any adjournment thereof or pursuant to any consent in lieu of a meeting, or otherwise, in favor of an Approved Sale and (ii) execute such documents and instruments, and take such other actions, as the Company may deem necessary or advisable to consummate an Approved Sale and to effect the distribution of the net proceeds thereof, all with the full power and authority to do and perform everything proper and necessary or advisable to carry out and execute this proxy and power of attorney to the same extent as such Holder could do if personally present and acting in the premises.

13. Termination of Rights; Legends.

(a) Termination of Certain Provisions upon IPO. Section 9, Section 10, Section 11 and Section 12 shall terminate immediately upon the closing of, and shall not be applicable to, the Company's first firm commitment underwritten public offering of its Common Stock pursuant to a registration statement under the Securities Act (excluding registration statements relating to employee benefit plans or with respect to corporate reorganizations or other transactions under Rule 145 of the Securities Act) in which the gross public offering proceeds to the Company are not less than twenty-five million dollars ($25,000,000).

(b) Required Certificate Legends. Each certificate representing Issued Shares shall bear on its face the following legend so long as Section 9, Section 10, Section 11 and Section 12 remain in effect:

> The shares of Stock represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or under the securities laws of any state or any other jurisdiction, and may not be offered for sale, sold or otherwise transferred except pursuant to an effective registration statement under the Securities Act and applicable state securities laws, or pursuant to an exemption from registration thereunder, the availability of which is to be established to the satisfaction of the corporation.
>
> The shares of stock represented by this certificate are subject to certain restrictions on transfer and to certain agreements relating to the voting and disposition of such shares pursuant to the terms of a Stock Option Agreement between the issuer of such shares and the initial holder of such shares. A copy of such restrictions and agreements will be furnished by the issuer to the record holder of this certificate without charge upon written request to the issuer at its principal place of business or registered office.

14. Market Stand Off.

Each Holder agrees that the Company (or a representative of the underwriters) may, in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, require that such Holder not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to, any shares of Common Stock or other securities of the Company held by such Holder, for a period of time specified by the underwriter(s) (not to exceed one hundred eighty (180) days) following the effective date of the registration statement of the Company filed under the Securities Act. Each such Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenants, the Company may impose stop-transfer instructions with respect to each such Holder's Common Stock or other securities of the Company until the end of such period.

15. Change in Control.

In connection with any Change in Control, the surviving corporation or acquiring corporation may assume the Option or substitute similar options for the Option (including options to acquire the consideration that would have been received by the Optionholder had he or she exercised the Option immediately prior to the consummation of such Change in Control transaction). If such surviving corporation or acquiring corporation does not assume the Option or substitute similar options for the Option, then (a) if the Optionholder's Continuous Service has not terminated prior to the effective time of the Change in Control, the vesting of the Option shall be accelerated in full and the Option may be exercised in connection with the Change in Control transaction and (b) the Option, if not exercised prior to or in connection with the Change in Control transaction, shall terminate.

16. Not an Employment or Service Contract.

This Agreement is not an employment or service contract. Nothing in this Agreement shall be deemed to create any obligation of the Optionholder to continue in the employ or service of the Company (or an Affiliate) or any obligation of the Company (or an Affiliate) to continue the Optionholder's employment or engagement.

17. Withholding Obligations.

The Optionholder hereby authorizes the Company to withhold from payroll and any other amounts payable to the Optionholder, and otherwise agrees to make adequate provision for and pay, any sums required to satisfy any federal, state, local and foreign tax withholding obligations of the Company that arise in connection with the Option and the Issued Shares, including, without limitation, obligations arising upon (a) the exercise of the Option and issuance of the Issued Shares, (b) the lapse of any substantial risk of forfeiture to which the Subject Shares are subject, (c) the transfer (as permitted by this Agreement), in whole or in part, of the Option or any Issued Shares or (d) the operation of any law or regulation providing for the imputation of interest. The Company may, in its sole discretion, permit the Optionholder to enter into alternative arrangements to provide for the payment of such withholding obligations, including by means of a "cashless exercise" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board.

18. Notices.

Any notices provided for in this Agreement or the Plan shall be given in writing and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to any Holder, five (5) days after deposit in the United States mail, postage prepaid, addressed to such Holder at the last address provided to the Company.

19. Governing Plan Document.

The Option is subject to all of the provisions of the Plan and is further subject to all interpretations, amendments, rules and regulations that may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan shall control.

By signing the Grant Notice or otherwise accepting the Option and any shares of Common Stock issuable upon exercise of the Option, the Optionholder agrees to be bound by terms of the Agreement and the Plan.

ASP Isotopes Inc.
2021 Stock Incentive Plan

STOCK OPTION GRANT NOTICE

ASP Isotopes Inc., a Delaware corporation (the "Company"), hereby grants to ________________________, a resident of the State of ____________ (the "Optionholder"), the option (the "Option") to purchase shares of the Common Stock, par value $0.01 per share, of the Company ("Common Stock"), pursuant to the Company's 2021 Stock Incentive Plan (the "Plan").

Subject Shares:

The number of shares of Common Stock subject to the Option is _______________ (the 'Subject Shares").

Date of Grant:

The date of grant of the Option is _______________, 20___ (the "Grant Date").

Type of Grant (check one):

☐ Incentive Stock Option ☐ Nonstatutory Stock Option

Exercise Price:

The exercise price of the Option is $_____ per share of Common Stock.

Vesting Schedule:

[Insert vesting schedule]

The Option will fully vest at the effective time of a Change in Control if the Recipient's Continuous Service with the Company does not terminate prior to such time.

Expiration Date:

The Option shall expire on the ten year anniversary of the Grant Date (or earlier as provided in the Stock Option Agreement attached hereto).

Additional Terms:

The Option is subject to all of the terms and conditions set forth herein and in the Plan, the Stock Option Agreement and the Notice of Exercise, all of which are attached hereto and incorporated herein in their entirety.

Acknowledgements and Agreements:

The undersigned Optionholder acknowledges receipt of the attached Plan, Stock Option Agreement and Notice of Exercise and understands and agrees to the terms, conditions and other provisions of this Stock Option Grant Notice and the attached Plan, Stock Option Agreement and Notice of Exercise.

The undersigned Optionholder acknowledges and agrees that the Option may be exercised only in accordance with the terms, conditions and other provisions of this Stock Option Grant Notice and the attached Plan, Stock Option Agreement and Notice of Exercise.

The undersigned Optionholder further acknowledges that, as of the Grant Date, the Plan, the Stock Option Agreement and the Grant Notice set forth the entire understanding between the Optionholder and the Company regarding the acquisition of any capital stock or other equity securities of the Company and supersede all prior oral and written agreements on that subject with the exception of only: (i) restricted stock awards and stock options previously granted and delivered to Optionholder under the Plan, and (ii) any agreements that may be set forth below:

List Other Agreements (if any): ____

____

____

Execution:

The Company and the Optionholder have each signed this Stock Option Grant Notice below indicating their understanding of, and agreement to, the terms and conditions set forth herein.

ASP Isotopes Inc.		**Optionholder:**	
By:	______________________	Signature:	______________________
Name:	______________________	Name:	______________________
Title:	______________________		
Date:	__________,20______	Date:	__________,20______

Attachments: ASP Isotopes Inc. 2021 Stock Incentive Plan, Stock Option Agreement and Notice of Exercise

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Attachment I

ASP Isotopes Inc.
2021 Stock Incentive Plan

Attachment II

Stock Option Agreement

Attachment III

Notice of Exercise

ASP Isotopes Inc.
2021 Stock Incentive Plan

RESTRICTED STOCK AWARD AGREEMENT

Pursuant to the Company's 2021 Stock Incentive Plan (the 'Plan"), the Company has granted to the Recipient an award of the number of shares of Restricted Stock ("Restricted Shares") set forth in that certain Restricted Stock Grant Notice (the 'Grant Notice") executed by the Company and the Recipient as of the Grant Date (as defined in the Grant Notice). Capitalized terms used but not otherwise defined in this Restricted Stock Award Agreement (this "Agreement") shall have the meanings set forth in the Plan and the Grant Notice, each of which is attached hereto and incorporated herein in their entirety.

The Restricted Shares issued to the Recipient pursuant to this Agreement and the Grant Notice are subject to all of the terms and conditions set forth in this Agreement and in the Plan and the Grant Notice.

1. Award of Shares of Restricted Stock.

(a) Grant of Shares of Restricted Stock. Pursuant to the Grant Notice and upon the terms and conditions set forth in the Plan and this Agreement, effective as of the Grant Date the Company hereby grants to the Recipient an award of shares of Restricted Stock under the Plan in consideration of the Participant's past and/or continued employment with or service to the Company or an Affiliate and for other good and valuable consideration.

(b) Escrow of Shares of Restricted Stock. The Company shall evidence the Restricted Shares in the manner that it deems appropriate. The Company may issue in the Recipient's name a certificate or certificates representing the Restricted Shares and retain that certificate or those certificates until the restrictions on such Restricted Shares expire as contemplated in Section 1(e) of this Agreement and described in the Grant Notice or the Restricted Shares are forfeited as contemplated in Section 1(d) of this Agreement and described in the Grant Notice. If the Company certificates the Restricted Shares, the Recipient shall execute one or more stock powers in blank for those certificates and deliver those stock powers to the Company. The Company shall hold the Restricted Shares and the related stock powers pursuant to the terms of this Agreement, if applicable, until such time as (i) a certificate or certificates for the Restricted Shares are delivered to the Recipient, (ii) the Restricted Shares are otherwise transferred to the Recipient free of restrictions, or (iii) the Restricted Shares are canceled and forfeited pursuant to this Agreement.

(c) Ownership of Shares of Restricted Stock. From and after the time the Restricted Shares are issued in the Recipient's name, the Recipient will be entitled to all the rights of absolute ownership of the Restricted Shares, including the right to vote those shares and to receive dividends thereon if, as, and when declared by the Board, subject, however, to the terms, conditions and restrictions set forth in this Agreement; *provided*, *however*, that each dividend payment will be made no later than the end of the calendar year in which the dividends are paid to the holders of Common Stock or, if later, the 15th day of the third month following the date the dividends are paid to the holders of Common Stock.

(d) Restrictions; Forfeiture. The Restricted Shares are restricted in that they may not be sold, transferred or otherwise alienated or hypothecated until these restrictions are removed or expire as contemplated in Section 1(e) of this Agreement and as described in the Grant Notice. The Restricted Shares are also restricted in the sense that they may be forfeited to the Company (the "Forfeiture Restrictions"). The Recipient hereby agree that if the Restricted Shares are forfeited, the Company shall deliver the Restricted Shares to the Company's transfer agent for, at the Company's election, cancellation or transfer to the Company.

(e) Expiration of Restrictions and Risk of Forfeiture. The restrictions on the Restricted Shares granted pursuant to this Agreement will expire and the Restricted Shares will become transferable and nonforfeitable as set forth in the Grant Notice, except as otherwise provided in this Agreement.

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2. Transferability of Shares of Common Stock Acquired under Award.

A holder of shares of Common Stock acquired pursuant to this Award ("Acquired Shares") or any beneficial interest therein (a "Holder") may not transfer any Acquired Shares, or any beneficial interest therein, unless:

(a) the Acquired Shares subject to the transfer are then registered under the Securities Act and any applicable state securities or "blue sky" laws or, if such Acquired Shares are not then so registered, the Company has determined that such transfer would be exempt from the registration requirements of the Securities Act and such state laws;

(b) such transfer complies with all other applicable laws and regulations and contractual obligations applicable to or binding on the Company, the Common Stock or the Holder;

(c) the transferee (if other than the Company) agrees in writing (in such form as the Company may require) to be bound by the provisions of this Section 2 and of Section 3 through Section 7 below with respect to such Acquired Shares, or interest therein, and any subsequent transfer thereof; and

(d) such transfer satisfies one or more of the following conditions:

(i) such transfer is approved in advance by the Committee in writing;

(ii) such transfer is made to the Company;

(iii) such transfer is made to (A) any member of the Holder's immediate family (i.e., spouse, lineal descendant, father, mother, brother or sister), (B) any custodian or trustee for the Holder's account and/or the account of one or more members of the Holder's immediate family or (C) any limited partnership of which all of the general partners and limited partners consist of (1) the Holder, (2) one or more members of the Holder's immediate family and/or (3) any trust of which only the Holder or one or more members of the Holder's immediate family are the beneficiaries (such family members, custodians, trustees and limited partnerships are referred to collectively as "Related Persons");

(iv) such transfer is made following the death of the Holder by will or pursuant to the laws of descent and distribution; or

(v) the Holder provides the Company with a Notice of Offer (as defined in Section 3(a) below) and such transfer is permitted by Section 3(e) below.

Any transfer or purported transfer by a Holder of any Acquired Shares, or any beneficial interest therein, that is not permitted by this Section 2 shall be null and void, and such Acquired Shares (together with any other Acquired Shares held by such Holder) shall thereupon become subject to the Company's right of repurchase pursuant to Section 4 below.

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3. Right of First Refusal.

(a) Notice of Offer. A Holder may at any time, and from time to time, provide the Company with a written notice (a "Notice of Offer") that the Holder desires to transfer all of any portion of the Acquired Shares to a third party pursuant to a *bona fide* written offer (the "Offer"), a copy of which shall be enclosed with the Notice of Offer. The Notice of Offer shall set forth the number of Acquired Shares that the Holder desires to sell (the "Offered Shares"), the name of the person to whom the Holder desires to make such sale (the "Transferee"), the form and amount of consideration that has been offered in connection with the Offer and the other material terms and conditions of the Offer. The Notice of Offer shall also set forth the Holder's irrevocable offer to sell the Offered Shares to the Company for the lesser of (i) the aggregate purchase price set forth in the Offer or (ii) the aggregate Fair Market Value of the Offered Shares as of the date of the Notice of Offer (such lesser amount, the "Offer Price"), in accordance with this Section 3.

(b) Company Right of Purchase. Upon receipt of a Notice of Offer, the Company shall have the right and option (but not the obligation) to purchase all (but not less than all) of the Offered Shares for the Offer Price in accordance with this Section 3. The Company will be entitled to exercise this right at any time during the period (the "Offer Period") beginning on the date the Notice of Offer is delivered to the Secretary of the Company and ending on the thirtieth (30th) day thereafter; provided, however, that if non-cash consideration is specified in the Offer, the end of the Offer Period will be tolled until such later date that is ten (10) days after the final determination of the fair market value of such non-cash consideration pursuant to Section 3(f) below.

(c) Exercise of Purchase Right. To exercise such purchase right, the Company must provide the Holder with a notice of exercise (an "Exercise Notice") during the Offer Period. The Exercise Notice shall state that the Company is exercising its right and option to purchase from the Holder all (but not less than all) of the Offered Shares for the Offer Price. The Exercise Notice shall also set forth the Fair Market Value of the Offered Shares as of the date of the Notice of Offer (determined in accordance with the Plan), the Offer Price and the date on which the purchase of the Offered Shares will be settled (which date shall be no later than ten (10) days after the Exercise Notice is delivered to the Holder).

(d) Closing of Purchase. The settlement of the Company's purchase of the Offered Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing the Offered Shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the Offer Price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

(e) Conditions of Permitted Transfer. If the Company does not provide the Holder with an Exercise Notice during the Offer Period pursuant to Section 3(c) above (or if the Company timely provides the Holder with an Exercise Notice but does not timely consummate the purchase of the Offered Shares pursuant to Section 3(d) above), the Holder may sell the Offered Shares to the Transferee during the sixty (60) day period commencing on the expiration of the Offer Period on the terms and conditions specified in the Offer.

(f) Valuation of Non-Cash Consideration. If the consideration that has been offered in connection with the Offer includes any non-cash consideration, the dollar value of such non-cash consideration for purposes of calculating the Offer Price will be its fair market value, as reasonably determined by the Committee in good faith as soon as practicable following the Company's receipt of the Notice of Offer.

4. Rights of Repurchase of Acquired Shares.

(a) Triggering Events. The Company shall have the right and option (but not the obligation) to purchase all (or any lesser portion that the Company may elect) of the Acquired Shares held by a Holder from such Holder in any of the following circumstances:

(i) if the Holder is the Recipient (or a Related Person of the Recipient), upon the termination of the Continuous Service of the Recipient for Cause;

(ii) upon the transfer or purported transfer of any Acquired Shares, or any beneficial interest therein, by the Holder (or a Related Person of the Holder) in violation of Section 2; or

(iii) upon any involuntary transfer of any Acquired Shares, or any beneficial interest therein, by the Holder (whether upon the death, divorce or bankruptcy of the Holder or for any other reason), other than a transfer made upon the death of the Holder by will or pursuant to the laws of descent and distribution if such transfer satisfies the conditions set forth in Section 2; provided, however, that rights of repurchase pursuant to this clause (iii) shall extend to only the Acquired Shares that are subject to such involuntary transfer (and not to any other Acquired Shares of the Holder).

(b) Exercise of Repurchase Right. The Company will be entitled to exercise a repurchase right pursuant to Section 4(a) at any time prior to the date that is twelve (12) months after the date on which the Company receives notice of (or the President or the Secretary of the Company otherwise has actual knowledge of) the events giving rise to such repurchase right (the "Repurchase Period").

(c) Purchase Price Determination. The purchase price payable by the Company for each Acquired Share for which it exercises a repurchase right pursuant to this Section 4 shall be as follows:

(i) if the repurchase right arises under Section 4(a)(i), Section 4(a)(iii) or Section 4(a)(iv), the purchase price shall be the lesser of (A) the Purchase Price, as adjusted pursuant to Section 15(a) of the Plan, and (B) the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right; and

(ii) if the repurchase right arises under Section 4(a)(ii) or Section 4(a)(v), the purchase price shall be the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right.

(d) Exercise of Repurchase Right. To exercise such repurchase right, the Company must provide the Holder with a notice of exercise (a "Repurchase Notice") during the Repurchase Period. The Repurchase Notice shall state that the Company is exercising its repurchase right, the number of Acquired Shares for which the Company is exercising its repurchase right, the purchase price payable by the Company for such shares (determined in accordance with Section 4(c)) and the date on which the repurchase of such shares will be settled (which date shall be no later than thirty (30) days after the Repurchase Notice is delivered to the Holder).

(e) Closing of Repurchase. The settlement of the Company's repurchase of such Acquired Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing such shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the purchase price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

5. Bring Along Rights.

(a) Approved Sale Covenants. If the Company provides written notice to a Holder that a Sale of the Company (as defined below) has been approved by a majority of the Board (an "Approved Sale"), each Holder shall (i) vote for such Approved Sale at any meeting of the stockholders of the Company or execute a written consent in lieu of such meeting to consent to and approve such Approved Sale (to the extent any such vote or consent is required to effect the Approved Sale or is otherwise desired by the Company), (ii) waive any dissenters' rights, appraisal rights and other similar rights with respect to the Approved Sale and otherwise raise no objections against such Approved Sale or the process by which it was arranged, (iii) cooperate fully with the Company (and the purchasers) to effectuate the Approved Sale and (iv) execute and deliver such documents and instruments, and take such other actions, as the Company (and the purchasers) may reasonably request to effect the Approved Sale, including, without limitation, the execution of any merger, sale, redemption or other similar agreement and the making of customary representations, warranties and indemnifications (including participating in any escrow arrangements and similar arrangements). As used herein, "Sale of the Business" shall mean any transaction or series of related transactions (whether structured as a stock sale, recapitalization, merger, consolidation, reorganization, asset sale, joint venture or otherwise) negotiated on an arm's-length basis that results, directly or indirectly, in the sale or transfer of all or substantially all of the assets of the Company or eighty percent (80%) of more of the shares of capital stock of the Company to an unaffiliated third party.

(b) Allocation of Liability. In connection with an Approved Sale, each Holder agrees to be severally liable (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) for any indemnification or other obligations of the stockholders of the Company (through an acquisition agreement, contribution agreement or as otherwise requested by the Company), except that (i) the Holder shall not be liable for any obligations that relate specifically to another stockholder (such as indemnification with respect to representations and warranties given by such other stockholder regarding such other stockholder's title to and ownership of capital stock) and (ii) the Holder may be solely liable for any obligations that relate specifically to such Holder.

(c) Conditions to Covenants. The covenants and obligations of a Holder with respect to an Approved Sale are subject to the conditions that (i) the consideration payable in connection with the Approved Sale and available for distribution to the stockholders of the Company must be allocated among such stockholders in accordance with the liquidation priorities set forth in the Certificate of Incorporation of the Company (as it may be amended and in effect from time to time) and (ii) each holder of a particular class or series of capital stock of the Company receives the same form and amount of consideration per share (and if any holder of a particular class or series of capital stock is given an option as to the form or amount of consideration to be received, all holders of such class or series must be given the same option).

(d) Purchaser Representative. If the Company enters into any negotiation or transaction for which Rule 506 promulgated by the Securities and Exchange Commission (the "SEC") or any similar rule then in effect may be available, the Holder (if not then an "accredited investor" within the meaning of Rule 501(a) promulgated by the SEC) will, at the request of the Company, appoint a purchaser representative (as such term is defined in Rule 501 promulgated by the SEC) approved by the Company and the Company will pay the fees of such purchaser representative. If the Holder declines to appoint the purchaser representative approved by the Company, the Holder must appoint another purchaser representative and will be solely responsible for the fees of the purchaser representative so appointed.

(e) Sale Expenses. The Holder will bear his, her or its *pro rata* share (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) of the reasonable costs of any Approved Sale (but only if the Approved Sale is actually consummated).

(f) Proxy Granted. For the purpose of enforcing the Holder's obligations pursuant to this Section 5, each Holder hereby grants to the President of the Company, with respect to all of such Holder's shares of capital stock of the Company entitled to vote, an irrevocable proxy (which is coupled with an interest) for the term of this Section 8 to act in such Holder's name, place and stead, as such Holder's true and lawful proxy and attorney-in-fact, to (i) vote such shares of capital stock at any annual, special or other meeting of the stockholders of the Company and at any adjournment thereof or pursuant to any consent in lieu of a meeting, or otherwise, in favor of an Approved Sale and (ii) execute such documents and instruments, and take such other actions, as the Company may deem necessary or advisable to consummate an Approved Sale and to effect the distribution of the net proceeds thereof, all with the full power and authority to do and perform everything proper and necessary or advisable to carry out and execute this proxy and power of attorney to the same extent as such Holder could do if personally present and acting in the premises.

6. Termination of Rights; Legends.

(a) Termination of Certain Provisions upon IPO. Section 2, Section 3, Section 4 and Section 5 shall terminate immediately upon the closing of, and shall not be applicable to, the Company's first firm commitment underwritten public offering of its Common Stock pursuant to a registration statement under the Securities Act (excluding registration statements relating to employee benefit plans or with respect to corporate reorganizations or other transactions under Rule 145 of the Securities Act) in which the gross public offering proceeds to the Company are not less than twenty-five million dollars ($25,000,000).

(b) Required Certificate Legends. Each certificate representing Acquired Shares shall bear on its face the following legend so long as Section 2, Section 3, Section 4 and Section 5 remain in effect:

> The shares of Stock represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or under the securities laws of any state or any other jurisdiction, and may not be offered for sale, sold or otherwise transferred except pursuant to an effective registration statement under the Securities Act and applicable state securities laws, or pursuant to an exemption from registration thereunder, the availability of which is to be established to the satisfaction of the corporation.
>
> The shares of stock represented by this certificate are subject to certain restrictions on transfer and to certain agreements relating to the voting and disposition of such shares pursuant to the terms of a Restricted Stock Award Agreement between the issuer of such shares and the initial holder of such shares. A copy of such restrictions and agreements will be furnished by the issuer to the record holder of this certificate without charge upon written request to the issuer at its principal place of business or registered office.

7. Market Stand Off.

Each Holder agrees that the Company (or a representative of the underwriters) may, in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, require that such Holder not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to, any shares of Common Stock or other securities of the Company held by such Holder, for a period of time specified by the underwriter(s) (not to exceed one hundred eighty (180) days) following the effective date of the registration statement of the Company filed under the Securities Act. Each such Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenants, the Company may impose stop-transfer instructions with respect to each such Holder's Common Stock or other securities of the Company until the end of such period.

8. Not an Employment or Service Contract.

This Agreement is not an employment or service contract. Nothing in this Agreement shall be deemed to create any obligation of the Recipient to continue in the employ or service of the Company (or an Affiliate) or any obligation of the Company (or an Affiliate) to continue the Recipient's employment or engagement.

9. Withholding Obligations.

The Company may require the Recipient to pay to the Company (or the Company's Subsidiary if the Recipient is an employee of a Subsidiary of the Company), an amount the Company deems appropriate to satisfy its (or its Subsidiary's) current or future obligation to withhold federal, state or local income or other taxes that the Recipient incurs as a result of the Award. With respect to any required tax withholding, the Recipient may (a) direct the Company to withhold from the shares of Common Stock to be issued to the Recipient under this Agreement shares to satisfy such withholding, which determination will be based on the shares' Fair Market Value at the time such determination is made; (b) deliver to the Company shares of Common Stock sufficient to satisfy such withholding, based on the shares' Fair Market Value at the time such determination is made; or (c) deliver cash to the Company sufficient to satisfy such withholding obligations. If the Recipient desires to elect to use the stock withholding option described in subparagraph (a), the Recipient must make the election at the time and in the manner the Company prescribes. The Company, in its discretion, may deny the Recipient's request to satisfy tax withholding using a method described under subparagraph (a) or (b). In the event the Company determines that the aggregate Fair Market Value of the shares of Common Stock withheld as payment of any tax withholding is insufficient to discharge its tax withholding obligation, then the Recipient must pay to the Company, in cash, the amount of that deficiency immediately upon the Company's request.

10. Section 83(b) Election.

In the event Recipient determines to make an election under Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code") (an "83(b) Election") (a form of which is attached hereto as Exhibit A), the Recipient hereby represents that he understands (a) the contents and requirements of the 83(b) Election, (b) the application of Section 83(b) of the Code to the receipt of the Restricted Shares by the Recipient pursuant to this Agreement, (c) the nature of the election to be made by the Recipient under Section 83(b) of the Code, (d) the effect and requirements of the 83(b) Election under relevant state and local tax laws, (e) that the 83(b) Election must be filed with the Internal Revenue Service within thirty (30) days following the Grant Date, and (vi) that the Recipient must submit a copy of such election to the Company.

11. Notices.

Any notices provided for in this Agreement or the Plan shall be given in writing and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to any Holder, five (5) days after deposit in the United States mail, postage prepaid, addressed to such Holder at the last address provided to the Company.

12. Governing Plan Document.

The Restricted Shares are subject to all of the provisions of the Plan and are further subject to all interpretations, amendments, rules and regulations that may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan

shall control.

By signing the Grant Notice or otherwise accepting the Restricted Shares, the Recipient agrees to be bound by terms of the Agreement and the Plan.

EXHIBIT A

October __, 2021

Certified Mail
Return Receipt Requested

Department of the Treasury
Internal Revenue Service Center
Austin, TX 73301-0002

Re: § 83(b) Election

Dear Sir or Madam:

Enclosed please find a signed election under § 83(b) of the Internal Revenue Code in connection with my receipt of shares of restricted stock in ASP Isotopes Inc.

Sincerely,

Enclosure

October __, 2021

By Hand Delivery

ASP Isotopes Inc.
[ADDRESS]

Re: § 83(b) Election

Enclosed please find a copy of the election I have filed pursuant to § 83(b) of the Internal Revenue Code. This copy is being furnished to you in accordance with Treasury Regulation § 1.83-2(d).

Sincerely,

Enclosure

ELECTION UNDER SECTION 83(b)
OF THE INTERNAL REVENUE CODE OF 1986

This statement is made under Section 83(b) of the Internal Revenue Code of 1986, as amended, pursuant to Section 1.83-2 of the regulations.

1. The taxpayer who performed the services is:

Name:
Address: ____
____
Social Security No.: ____
Taxable Year: 2021

2. The property with respect to which the election is made is __________ shares of the voting common stock of ASP Isotope Inc., a Delaware corporation (the "Company").

3. The property was transferred to the undersigned on October 27, 2021.

4. The property is subject to forfeiture conditions (200,000 shares of restricted stock vest on each of the first, second and third anniversary of the date of grant). The property may not be sold, assigned, transferred, pledged or otherwise encumbered until the forfeiture conditions lapse.

5. The fair market value of such property at the time of transfer (determined without regard to any restriction other than a restriction which by its terms will never lapse) is $**[_____]**

6. For the property transferred, the undersigned paid no purchase price.

7. The amount to include in gross income is $**[_____]**

8. A copy of this statement was furnished to the Company for whom taxpayer rendered the services underlying the transfer of such property.

9. This statement is executed on October __, 2021.

___________________________________	___________________________________
Signature of Taxpayer's Spouse (if any)	Signature of Taxpayer

This election must be filed within 30 days after the date of transfer with the Internal Revenue Service Center with which taxpayer files his or her federal income tax returns. This filing should be made by registered or certified mail, return receipt requested. Taxpayer must retain a copy for his or her records.

Exhibit 10.2

ASP ISOTOPES INC.
2022 EQUITY INCENTIVE PLAN

TABLE OF CONTENTS

	Page
1. Establishment, Purpose and Term of Plan	1
1.1 Establishment	1
1.2 Purpose	1
1.3 Term of Plan	1
2. Definitions and Construction	1
2.1 Definitions	1
2.2 Construction	9
3. Administration	9
3.1 Administration by the Committee	9
3.2 Authority of Officers	9
3.3 Administration with Respect to Insiders	10
3.4 Powers of the Committee	10
3.5 Option or SAR Repricing	11
3.6 Indemnification	12
4. Shares Subject to Plan	12
4.1 Maximum Number of Shares Issuable	12
4.2 Share Counting	12
4.3 Adjustments for Changes in Capital Structure	13
4.4 Assumption or Substitution of Awards	13
5. Eligibility, Participation and Award Limitations	14
5.1 Persons Eligible for Awards	14
5.2 Participation in the Plan	14
5.3 Incentive Stock Option Limitations	14
5.4 Nonemployee Director Award Limit	15
6. Stock Options	15
6.1 Exercise Price	15
6.2 Exercisability and Term of Options	15
6.3 Payment of Exercise Price	16
6.4 Effect of Termination of Service	17
6.5 Transferability of Options	18

TABLE OF CONTENTS
(continued)

	Page
7. Stock Appreciation Rights	18
7.1 Types of SARs Authorized	18
7.2 Exercise Price	18
7.3 Exercisability and Term of SARs	18
7.4 Exercise of SARs	19
7.5 Deemed Exercise of SARs	19
7.6 Effect of Termination of Service	20
7.7 Transferability of SARs	20
8. Restricted Stock Awards	20
8.1 Types of Restricted Stock Awards Authorized	20
8.2 Purchase Price	20
8.3 Purchase Period	20
8.4 Payment of Purchase Price	21
8.5 Vesting and Restrictions on Transfer	21
8.6 Voting Rights; Dividends and Distributions	21
8.7 Effect of Termination of Service	22
8.8 Nontransferability of Restricted Stock Award Rights	22
9. Restricted Stock Units	22
9.1 Grant of Restricted Stock Unit Awards	22

9.2 Purchase Price	22
9.3 Vesting	22
9.4 Voting Rights, Dividend Equivalent Rights and Distributions	23
9.5 Effect of Termination of Service	23
9.6 Settlement of Restricted Stock Unit Awards	23
9.7 Nontransferability of Restricted Stock Unit Awards	24
10. Performance Awards	24
10.1 Types of Performance Awards Authorized	24
10.2 Initial Value of Performance Shares and Performance Units	24
10.3 Establishment of Performance Period, Performance Goals and Performance Award Formula	24
10.4 Measurement of Performance Goals	25
10.5 Settlement of Performance Awards	25
10.6 Voting Rights; Dividend Equivalent Rights and Distributions	27
10.7 Effect of Termination of Service	27
10.8 Nontransferability of Performance Awards	28

TABLE OF CONTENTS
(continued)

	Page
11. Cash-Based Awards and Other Stock-Based Awards	28
11.1 Grant of Cash-Based Awards	28
11.2 Grant of Other Stock-Based Awards	28
11.3 Value of Cash-Based and Other Stock-Based Awards	28
11.4 Payment or Settlement of Cash-Based Awards and Other Stock-Based Awards	28
11.5 Voting Rights; Dividend Equivalent Rights and Distributions	29
11.6 Effect of Termination of Service	29
11.7 Nontransferability of Cash-Based Awards and Other Stock-Based Awards	29
12. Standard Forms of Award Agreement	30
12.1 Award Agreements	30
12.2 Authority to Vary Terms	30
13. Change in Control	30
13.1 Effect of Change in Control on Awards	30
13.2 Effect of Change in Control on Nonemployee Director Awards	32
13.3 Federal Excise Tax Under Section 4999 of the Code	32
14. Compliance with Securities Law	33
15. Compliance with Section 409A	33
15.1 Awards Subject to Section 409A	33
15.2 Deferral and/or Distribution Elections	33
15.3 Subsequent Elections	34
15.4 Payment of Section 409A Deferred Compensation	34
16. Tax Withholding	37
16.1 Tax Withholding in General	37
16.2 Withholding in or Directed Sale of Shares	37
17. Amendment, Suspension or Termination of Plan	37
18. Miscellaneous Provisions	37
18.1 Repurchase Rights	37
18.2 Forfeiture Events	38
18.3 Provision of Information	38
18.4 Electronic Delivery and Participation	38
18.5 Change in Time Commitment	39
18.6 Rights as Employee, Consultant or Director	39
18.7 Rights as a Stockholder	39
18.8 Delivery of Title to Shares	39
18.9 Fractional Shares	39
18.10 Provisions for Non-U.S. Participants	40
18.11 Lock-Up Period	40
18.12 Data Privacy	40
18.13 Retirement and Welfare Plans	40
18.14 Beneficiary Designation	41
18.15 Severability	41
18.16 No Constraint on Corporate Action	41
18.17 Unfunded Obligation	41
18.18 Choice of Law	41

ASP Isotopes Inc.
2022 Equity Incentive Plan

1. **<u>Establishment, Purpose and term of Plan</u>.**

1.1 **Establishment.**

(a) The ASP Isotopes Inc. 2022 Equity Incentive Plan (the '***Plan***") is hereby established effective as of the Effective Date. Certain capitalized terms used herein have the meanings set forth in Section 2 of the Plan.

(b) The Plan is the successor to the Prior Plan. As of the Effective Date: (i) no additional awards may be granted under the Prior Plan, and (ii) all awards granted under the Prior Plan that are outstanding on the Effective Date will remain subject to the terms of the Prior Plan.

1.2 **Purpose.** The purpose of the Plan is to advance the interests of the Participating Company Group and its stockholders by providing an incentive to attract, retain and reward persons performing services for the Participating Company Group and by motivating such persons to contribute to the growth and profitability of the Participating Company Group. The Plan seeks to achieve this purpose by providing for Awards in the form of Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Performance Shares, Performance Units, Cash-Based Awards and Other Stock-Based Awards.

1.3 **Term of Plan.** The Plan shall continue in effect until its termination by the Committee; provided, however, that any Incentive Stock Option shall be granted, if at all, within ten (10) years from the earlier of the date that the Plan was approved by the Board or the stockholders of the Company.

2. **Definitions and Construction.**

2.1 **Definitions.** Whenever used herein, the following terms shall have their respective meanings set forth below:

(a) "***Affiliate***" means (i) a parent entity, other than a Parent Corporation, that directly, or indirectly through one or more intermediary entities, controls the Company or (ii) a subsidiary entity, other than a Subsidiary Corporation, that is controlled by the Company directly or indirectly through one or more intermediary entities. For this purpose, the terms "parent," "subsidiary," "control" and "controlled by" shall have the meanings assigned to such terms for the purposes of registration of securities on Form S-8 under the Securities Act.

(b) "***Award***" means any Option, Stock Appreciation Right, Restricted Stock Purchase Right, Restricted Stock Bonus, Restricted Stock Unit, Performance Share, Performance Unit, Cash-Based Award or Other Stock-Based Award granted under the Plan.

(c) "***Award Agreement***" means a written or electronic agreement between the Company and a Participant setting forth the terms, conditions and restrictions applicable to an Award.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Cash-Based Award***" means an Award denominated in cash and granted pursuant to Section 11.

(f) "***Cashless Exercise***" means a Cashless Exercise as defined in Section 6.3(b)(i).

(g) "***Cause***" has the meaning ascribed to such term in any written agreement between the Participant and the applicable Participating Company that employs or engages Participant defining such term and, in the absence of such an agreement that contains such term, "Cause" means, with respect to a Participant, the occurrence of any of the following events: (i) the Participant's theft, dishonesty, willful misconduct, breach of fiduciary duty for personal profit, or falsification of any Participating Company documents or records; (ii) the Participant's material failure to abide by a Participating Company's code of conduct or other policies (including, without limitation, policies relating to confidentiality and reasonable workplace conduct); (iii) the Participant's unauthorized use, misappropriation, destruction or diversion of any tangible or intangible asset or corporate opportunity of a Participating Company (including, without limitation, the Participant's improper use or disclosure of a Participating Company's confidential or proprietary information); (iv) any intentional act by the Participant which has a material detrimental effect on a Participating Company's reputation or business; (v) the Participant's repeated failure or inability to perform any reasonable assigned duties after written notice from a Participating Company of, and a reasonable opportunity to cure, such failure or inability; (vi) any material breach by the Participant of any employment, service, non-disclosure, non-competition, non-solicitation or other similar agreement between the Participant and a Participating Company, which breach is not cured pursuant to the terms of such agreement (except with respect to a disclosure protected by applicable law); or (vii) the Participant's conviction (including any plea of guilty or *nolo contendere*) of any criminal act involving fraud, dishonesty, misappropriation or moral turpitude, or which impairs the Participant's ability to perform his or her duties with a Participating Company.

(h) "***Change in Control***" means the occurrence of any one or a combination of the following:

(i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as such term is defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total Fair Market Value or total combined voting power of the Company's then-outstanding securities entitled to vote generally in the election of Directors; provided, however, that a Change in Control shall not be deemed to have occurred if such degree of beneficial ownership results from any of the following: (A) an acquisition by any person who on the Effective Date is the beneficial owner of more than fifty percent (50%) of such voting power, (B) any acquisition directly from the Company, including, without limitation, pursuant to or in connection with a public offering of securities, (C) any acquisition by the Company, (D) any acquisition by a trustee or other fiduciary under an employee benefit plan of a Participating Company or (E) any acquisition by an entity owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of the voting securities of the Company; or

(ii) an Ownership Change Event or series of related Ownership Change Events (collectively, a "***Transaction***") in which the stockholders of the Company immediately before the Transaction do not retain immediately after the Transaction direct or indirect beneficial ownership of more than fifty percent (50%) of the total combined voting power of the outstanding securities entitled to vote generally in the election of Directors or, in the case of an Ownership Change Event described in Section 2.1(gg)(iii), the entity to which the assets of the Company were transferred (the "***Transferee***"), as the case may be; or

(iii) a date specified by the Committee following approval by the stockholders of a plan of complete liquidation or dissolution of the Company;

provided, however, that a Change in Control shall be deemed not to include a transaction described in subsections (i) or (ii) of this Section 2.1(h) in which a majority of the members of the board of directors of the continuing, surviving or successor entity, or parent thereof, immediately after such transaction is comprised of Incumbent Directors.

For purposes of the preceding sentence, indirect beneficial ownership shall include, without limitation, an interest resulting from ownership of the voting securities of one or more corporations or other business entities which own the Company or the Transferee, as the case may be, either directly or through one or more subsidiary corporations or other business entities. The Committee shall determine whether multiple events described in subsections (i), (ii) and (iii) of this Section 2.1(h) are related and to be treated in the aggregate as a single Change in Control, and its determination shall be final, binding and conclusive.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any Award (or portion of any Award) that provides for the deferral of compensation that is subject to Section 409A, to the extent required to avoid the imposition of additional taxes under Section 409A, the transaction or event described in subsections (i), (ii) and (iii) with respect to such Award (or portion thereof) shall only constitute a Change in Control for purposes of the payment timing of such Award if such

transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5).

The Committee shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control has occurred pursuant to the above definition, the date of the occurrence of such Change in Control and any incidental matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether a Change in Control is a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

(i) "***Code***" means the Internal Revenue Code of 1986, as amended, and any applicable regulations and administrative guidelines promulgated thereunder.

(j) "***Committee***" means the Compensation Committee and such other committee or subcommittee of the Board, if any, duly appointed to administer the Plan and having such powers in each instance as shall be specified by the Board. If, at any time, there is no committee of the Board then authorized or properly constituted to administer the Plan, the Board shall exercise all of the powers of the Committee granted herein, and, in any event, the Board may in its discretion exercise any or all of such powers and, in such instances, references herein to the Committee shall mean the Board. Unless the Board specifically determines otherwise, each member of the Committee shall, at the time it takes any action with respect to an Award under the Plan, be a "non-employee director" within the meaning of Rule 16b-3 and an "independent director" under the rules of any stock exchange on which the Stock is listed. However, the fact that a Committee member shall fail to qualify as "non-employee director" or an "independent director" shall not invalidate any Award granted by the Committee which Award is otherwise validly granted under the Plan.

(k) "***Company***" means ASP Isotopes Inc., a Delaware corporation, and any successor corporation thereto.

(l) "***Consultant***" means a person engaged to provide consulting or advisory services (other than as an Employee or a Director) to a Participating Company, provided that the identity of such person, the nature of such services or the entity to which such services are provided would not preclude the Company from offering or selling securities to such person pursuant to the Plan in reliance on registration on Form S-8 under the Securities Act.

(m) "***Director***" means a member of the Board.

(n) "***Disability***" means the permanent and total disability of the Participant, within the meaning of Section 22(e)(3) of the Code.

(o) "***Dividend Equivalent Right***" means the right of a Participant, granted at the discretion of the Committee or as otherwise provided by the Plan, to receive a credit for the account of such Participant in an amount equal to the cash dividends paid on one share of Stock for each share of Stock represented by an Award held by such Participant.

(p) ***"Effective Date***" means the IPO Date, provided this Plan is approved by the Company's stockholders prior to the IPO Date.

(q) "***Employee***" means any person treated as an employee (including an Officer or a Director who is also treated as an employee) in the records of a Participating Company and, with respect to any Incentive Stock Option granted to such person, who is an employee for purposes of Section 422 of the Code; provided, however, that neither service as a Director nor payment of a Director's fee shall be sufficient to constitute employment for purposes of the Plan. The Company shall determine in good faith and in the exercise of its discretion whether an individual has become or has ceased to be an Employee and the effective date of such individual's employment or termination of employment, as the case may be. For purposes of an individual's rights, if any, under the terms of the Plan as of the time of the Company's determination of whether or not the individual is an Employee, all such determinations by the Company shall be final, binding and conclusive as to such rights, if any, notwithstanding that the Company or any court of law or governmental agency subsequently makes a contrary determination as to such individual's status as an Employee.

(r) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

(s) "***Fair Market Value***" means, as of any date, the value of a share of Stock or other property as determined by the Committee, in its discretion, or by the Company, in its discretion, if such determination is expressly allocated to the Company herein, subject to the following:

(i) Except as otherwise determined by the Committee, if, on such date, the Stock is listed or quoted on a national or regional securities exchange or quotation system, the Fair Market Value of a share of Stock shall be the closing price of a share of Stock as quoted on the national or regional securities exchange or quotation system constituting the primary market for the Stock, as reported in *The Wall Street Journal* or such other source as the Company deems reliable. If the relevant date does not fall on a day on which the Stock has traded on such securities exchange or quotation system, the date on which the Fair Market Value shall be established shall be the last day on which the Stock was so traded or quoted prior to the relevant date, or such other appropriate day as shall be determined by the Committee, in its discretion.

(ii) If, on such date, the Stock is not listed or quoted on a national or regional securities exchange or quotation system, the Fair Market Value of a share of Stock shall be as determined by the Committee in good faith without regard to any restriction other than a restriction which, by its terms, will never lapse, and in a manner consistent with the requirements of Section 409A and/or Section 422 of the Code to the extent applicable.

(t) "***Full Value Award***" means any Award settled in Stock, other than (i) an Option, (ii) a Stock Appreciation Right, or (iii) a Restricted Stock Purchase Right or an Other Stock-Based Award under which the Company will receive monetary consideration equal to the Fair Market Value (determined on the effective date of grant) of the shares subject to such Award.

(u) "***Incentive Stock Option***" means an Option intended to be (as set forth in the Award Agreement) and which qualifies as an incentive stock option within the meaning of Section 422(b) of the Code.

(v) "***Incumbent Director***" means a director who either (i) is a member of the Board as of the Effective Date or (ii) is elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but excluding a director who was elected or nominated in connection with an actual or threatened proxy contest relating to the election of directors of the Company).

(w) "***Insider***" means an Officer, a Director or other person whose transactions in Stock are subject to Section 16 of the Exchange Act.

(x) "***IPO Date***" means the date of the underwriting agreement between the Company and the underwriter(s) managing the initial public offering of the Company's common stock, pursuant to which the common stock is priced for the initial public offering.

(y) "***Materially Impair***" means any amendment to the terms of the Award that materially adversely affects the Participant's rights under the Award. A Participant's rights under an Award will not be deemed to have been Materially Impaired by any such amendment if the Committee, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights. For example, the following types of amendments to the terms of an Award do not Materially Impair the Participant's rights under the Award: (i) imposition of reasonable restrictions on the minimum number of shares subject to an Option that may be exercised, (ii) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (iii) to change the terms of an Incentive Stock Option in a manner that disqualifies, impairs or otherwise affects the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code; (iv) to clarify the manner of exemption from, or to bring the Award into compliance with or qualify it for an exemption from, Section 409A; or (v) to comply with other applicable laws.

(z) "***Net Exercise***" means a Net Exercise as defined in Section 6.3(b)(iii).

(aa) "***Nonemployee Director***" means a Director who is not an Employee.

(bb) "***Nonemployee Director Award***" means any Award granted to a Nonemployee Director.

(cc) "***Nonstatutory Stock Option***" means an Option not intended to be (as set forth in the Award Agreement) or which does not qualify as an incentive stock option within the meaning of Section 422(b) of the Code.

(dd) "***Officer***" means any person designated by the Board as an officer of the Company.

(ee) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option granted pursuant to the Plan.

(ff) "***Other Stock-Based Award***" means an Award denominated in shares of Stock and granted pursuant to Section 11.

(gg) "***Ownership Change Event***" means the occurrence of any of the following with respect to the Company: (i) the direct or indirect sale or exchange in a single or series of related transactions by the stockholders of the Company of securities of the Company representing more than fifty percent (50%) of the total combined voting power of the Company's then outstanding securities entitled to vote generally in the election of Directors; (ii) a merger or consolidation in which the Company is a party; or (iii) the sale, exchange, or transfer of all or substantially all of the assets of the Company (other than a sale, exchange or transfer to one or more subsidiaries of the Company).

(hh) "***Parent Corporation***" means any present or future "parent corporation" of the Company, as defined in Section 424(e) of the Code.

(ii) "***Participant***" means any eligible person who has been granted one or more Awards.

(jj) "***Participating Company***" means the Company or any Parent Corporation, Subsidiary Corporation or Affiliate.

(kk) "***Participating Company Group***" means, at any point in time, the Company and all other entities collectively which are then Participating Companies.

(ll) "***Performance Award***" means an Award of Performance Shares or Performance Units.

(mm) "***Performance Award Formula***" means, for any Performance Award, a formula or table established by the Committee pursuant to Section 10.3 which provides the basis for computing the value of a Performance Award at one or more levels of attainment of the applicable Performance Goal(s) measured as of the end of the applicable Performance Period.

(nn) "***Performance Goal***" means a performance goal established by the Committee pursuant to Section 10.3.

(oo) "***Performance Period***" means a period established by the Committee pursuant to Section 10.3 at the end of which one or more Performance Goals are to be measured.

(pp) "***Performance Share***" means a right granted to a Participant pursuant to Section 10 to receive a payment equal to the value of a Performance Share, as determined by the Committee, based upon attainment of applicable Performance Goal(s).

(qq) "***Performance Unit***" means a right granted to a Participant pursuant to Section 10 to receive a payment equal to the value of a Performance Unit, as determined by the Committee, based upon attainment of applicable Performance Goal(s).

(rr) "***Plan Administrator***" means the person, persons, and/or third-party administrator designated by the Company to administer the day to day operations of the Plan and the Company's other equity incentive programs.

(ss) ***"Prior Plan"*** means the Company's 2021 Equity Incentive Plan.

(tt) "***Post-Termination Exercise Period***" means the period following termination of a Participant's continuous Service within which an Option or SAR is exercisable, as specified in Section 6.4(a).

(uu) "***Restricted Stock Award***" means an Award of a Restricted Stock Bonus or a Restricted Stock Purchase Right.

(vv) "***Restricted Stock Bonus***" means Stock granted to a Participant pursuant to Section 8.

(ww) "***Restricted Stock Purchase Right***" means a right to purchase Stock granted to a Participant pursuant to Section 8.

(xx) "***Restricted Stock Unit***" means a right granted to a Participant pursuant to Section 9 to receive on a future date or occurrence of a future event a share of Stock or cash in lieu thereof, as determined by the Committee.

(yy) "***Rule 16b-3***" means Rule 16b-3 under the Exchange Act, as amended from time to time, or any successor rule or regulation.

(zz) "***SAR***" or "***Stock Appreciation Right***" means a right granted to a Participant pursuant to Section 7 to receive payment, for each share of Stock

subject to such Award, of an amount equal to the excess, if any, of the Fair Market Value of a share of Stock on the date of exercise of the Award over the exercise price thereof.

(aaa) "***Section 409A***" means Section 409A of the Code.

(bbb) "***Section 409A Deferred Compensation***" means compensation provided pursuant to an Award that constitutes nonqualified deferred compensation within the meaning of Section 409A.

(ccc) "***Securities Act***" means the Securities Act of 1933, as amended.

(ddd) "***Service***" means a Participant's employment or service with the Participating Company Group, whether as an Employee, a Director or a Consultant. Unless otherwise provided by the Committee, a Participant's Service shall not be deemed to have terminated merely because of a change in the capacity in which the Participant renders Service or a change in the Participating Company for which the Participant renders Service, provided that there is no interruption or termination of the Participant's Service. Furthermore, a Participant's Service shall not be deemed to have been interrupted or terminated if the Participant takes any military leave, sick leave, or other bona fide leave of absence approved by the Company. However, unless otherwise provided by the Committee, if any such leave taken by a Participant exceeds ninety (90) days, then on the ninety-first (91st) day following the commencement of such leave the Participant's Service shall be deemed to have terminated, unless the Participant's right to return to Service is guaranteed by statute or contract. Notwithstanding the foregoing, unless otherwise designated by the Company or required by law, an unpaid leave of absence shall not be treated as Service for purposes of determining vesting under the Participant's Award Agreement. A Participant's Service shall be deemed to have terminated either upon an actual termination of Service or upon the business entity for which the Participant performs Service ceasing to be a Participating Company. Subject to the foregoing, the Company, in its discretion, shall determine whether the Participant's Service has terminated and the effective date of and reason for such termination.

(eee) "***Stock***" means the common stock of the Company, as adjusted from time to time in accordance with Section 4.

(fff) "***Stock Tender Exercise***" means a Stock Tender Exercise as defined in Section 6.3(b)(ii).

(ggg) "***Subsidiary Corporation***" means any present or future "subsidiary corporation" of the Company, as defined in Section 424(f) of the Code.

(hhh) "***Ten Percent Owner***" means a Participant who, at the time an Option is granted to the Participant, owns stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of a Participating Company (other than an Affiliate) within the meaning of Section 422(b)(6) of the Code.

(iii) "***Trading Compliance Policy***" means the written policy of the Company pertaining to the purchase, sale, transfer or other disposition of the Company's equity securities by Directors, Officers, Employees or other service providers who may possess material, nonpublic information regarding the Company or its securities.

(jjj) "***Vesting Conditions***" mean those conditions established in accordance with the Plan prior to the satisfaction of which an Award or shares subject to an Award remain subject to forfeiture or a repurchase option in favor of the Company exercisable for the Participant's monetary purchase price, if any, for such shares upon the Participant's termination of Service or failure of a performance condition to be satisfied.

2.2 **Construction.** Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of the Plan. Except when otherwise indicated by the context, the singular shall include the plural and the plural shall include the singular. Use of the term "or" is not intended to be exclusive, unless the context clearly requires otherwise.

3. **Administration.**

3.1 **Administration by the Committee.** The Plan shall be administered by the Committee. All questions of interpretation of the Plan, of any Award Agreement or of any other form of agreement or other document employed by the Company in the administration of the Plan or of any Award shall be determined by the Committee, and such determinations shall be final, binding and conclusive upon all persons having an interest in the Plan or such Award, unless fraudulent or made in bad faith. Any and all actions, decisions and determinations taken or made by the Committee in the exercise of its discretion pursuant to the Plan or Award Agreement or other agreement thereunder (other than determining questions of interpretation pursuant to the preceding sentence) shall be final, binding and conclusive upon all persons having an interest therein. All expenses incurred in connection with the administration of the Plan shall be paid by the Company.

3.2 **Authority of Officers.** Any Officer shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, determination or election that is the responsibility of or that is allocated to the Company herein, provided that the Officer has apparent authority with respect to such matter, right, obligation, determination or election. To the extent permitted by applicable law, the Committee may, in its discretion, delegate to a committee comprised of one or more Officers the authority to grant one or more Awards, without further approval of the Committee, to any Employee, other than a person who, at the time of such grant, is an Insider, and to exercise such other powers under the Plan as the Committee may determine; provided, however, that (a) the Committee shall fix the maximum number of shares subject to Awards that may be granted by such Officers, (b) each such Award shall be subject to the terms and conditions of the appropriate standard form of Award Agreement approved by the Board or the Committee and shall conform to the provisions of the Plan, and (c) each such Award shall conform to such other limits and guidelines as may be established from time to time by the Committee.

3.3 **Administration with Respect to Insiders.** With respect to participation by Insiders in the Plan, at any time that any class of equity security of the Company is registered pursuant to Section 12 of the Exchange Act, the Plan shall be administered in compliance with the requirements, if any, of Rule 16b-3.

3.4 **Powers of the Committee.** In addition to any other powers set forth in the Plan and subject to the provisions of the Plan, the Committee shall have the full and final power and authority, in its discretion:

(a) to determine the persons to whom, and the time or times at which, Awards shall be granted and the number of shares of Stock, units or monetary value to be subject to each Award;

(b) to determine the type of Award granted;

(c) to determine the Fair Market Value of shares of Stock or other property;

(d) to determine the terms, conditions and restrictions applicable to each Award (which need not be identical) and any shares acquired pursuant thereto, including, without limitation, (i) the exercise or purchase price of shares pursuant to any Award, (ii) the method of payment for shares purchased pursuant to any Award, (iii) the method for satisfaction of any tax withholding obligation arising in connection with any Award, including by the withholding or delivery of shares of Stock, (iv)

the timing, terms and conditions of the exercisability or vesting of any Award or any shares acquired pursuant thereto, (v) the Performance Measures, Performance Period, Performance Award Formula and Performance Goals applicable to any Award and the extent to which such Performance Goals have been attained, (vi) the time of expiration of any Award, (vii) the effect of any Participant's termination of Service on any of the foregoing, and (viii) all other terms, conditions and restrictions applicable to any Award or shares acquired pursuant thereto not inconsistent with the terms of the Plan;

(e) to determine whether an Award will be settled in shares of Stock, cash, other property or in any combination thereof;

(f) to approve one or more forms of Award Agreement;

(g) to amend, modify, extend, cancel or renew any Award or to waive any restrictions or conditions applicable to any Award or any shares acquired pursuant thereto *provided however*, that, a Participant's rights under any Award will not be Materially Impaired by any such amendment unless (i) the Company requests the consent of the affected Participant, and (ii) such Participant consents in writing;

(h) to accelerate, continue, extend or defer the exercisability or vesting of any Award or any shares acquired pursuant thereto, including with respect to the period following a Participant's termination of Service *provided however*, that, a Participant's rights under any Award will not be Materially Impaired by any such amendment unless (i) the Company requests the consent of the affected Participant, and (ii) such Participant consents in writing;

(i) to prescribe, amend or rescind rules, guidelines and policies relating to the Plan, or to adopt sub-plans or supplements to, or alternative versions of, the Plan, including, without limitation, as the Committee deems necessary or desirable to comply with the laws of, or to accommodate the tax policy, accounting principles or custom of, foreign jurisdictions whose residents may be granted Awards;

(j) To prohibit the exercise of any Option, SAR or other exercisable Award during a period of up to 30 days prior to the consummation of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of Stock or the share price of the Stock including any Change in Control, for reasons of administrative convenience;

(k) To effect, at any time and from time to time, subject to the consent of any Participant whose Award is Materially Impaired by such action, (i) the reduction of the exercise price (or strike price) of any outstanding Option or SAR; (i) the cancellation of any outstanding Option or SAR and the grant in substitution therefor of (A) a new Option, SAR, Restricted Stock Award, RSU Award or Other Award, under the Plan or another equity plan of the Company, covering the same or a different number of shares of Stock, (B) cash and/or (C) other valuable consideration (as determined by the Board); or (iii) any other action that is treated as a repricing under generally accepted accounting principles; and

(l) to correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award Agreement and to make all other determinations and take such other actions with respect to the Plan or any Award as the Committee may deem advisable to the extent not inconsistent with the provisions of the Plan or applicable law.

3.5 **Option or SAR Repricing.** The Committee shall have the authority, without additional approval by the stockholders of the Company, to approve a program providing for either (a) the cancellation of outstanding Options or SARs having exercise prices per share greater than the then Fair Market Value of a share of Stock (*"**Underwater Awards**"*) and the grant in substitution therefor of new Options or SARs covering the same or a different number of shares but with an exercise price per share equal to the Fair Market Value per share on the new grant date, Full Value Awards, or payments in cash, or (b) the amendment of outstanding Underwater Awards to reduce the exercise price thereof to the Fair Market Value per share on the date of amendment.

3.6 **Indemnification.** In addition to such other rights of indemnification as they may have as members of the Board or the Committee or as officers or employees of the Participating Company Group, to the extent permitted by applicable law, members of the Board or the Committee and any officers or employees of the Participating Company Group to whom authority to act for the Board, the Committee or the Company is delegated shall be indemnified by the Company against all reasonable expenses, including attorneys' fees, actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan, or any right granted hereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that such person is liable for gross negligence, bad faith or intentional misconduct in duties; provided, however, that within sixty (60) days after the institution of such action, suit or proceeding, such person shall offer to the Company, in writing, the opportunity at its own expense to handle and defend the same.

4. **Shares Subject to Plan.**

4.1 **Maximum Number of Shares Issuable.** Subject to adjustment as provided in Sections 4.2 and 4.3, the maximum aggregate number of shares of Stock that may be issued under the Plan shall be 5,000,000 shares, plus an annual increase commencing on January 1, 2023 and on each subsequent January 1 through and including January 1, 2032 by a number of shares equal to the lesser of (i) five percent (5%) of the number of shares of Stock outstanding as of the conclusion of the Company's immediately preceding fiscal year, or (ii) such amount, if any, as the Board may determine, and such shares shall consist of authorized but unissued or reacquired shares of Stock or any combination thereof.

4.2 **Share Counting.** If an outstanding Award for any reason expires or is terminated or canceled without having been exercised or settled in full, or if shares of Stock acquired pursuant to an Award subject to forfeiture or repurchase are forfeited or repurchased by the Company for an amount not greater than the Participant's purchase price, the shares of Stock allocable to the terminated portion of such Award or such forfeited or repurchased shares of Stock shall again be available for issuance under the Plan. Shares of Stock shall not be deemed to have been issued pursuant to the Plan with respect to any portion of an Award that is settled in cash. Upon payment in shares of Stock pursuant to the exercise of an SAR, the number of shares available for issuance under the Plan shall be reduced by the gross number of shares for which the SAR is exercised. If the exercise price of an Option is paid by tender to the Company, or attestation to the ownership, of shares of Stock owned by the Participant, or by means of a Net Exercise, the number of shares available for issuance under the Plan shall be reduced only by the net number of shares for which the Option is exercised. Shares purchased in the open market with proceeds from the exercise of Options shall not be added to the limit set forth in Section 4.1. Shares withheld or reacquired by the Company in satisfaction of tax withholding obligations pursuant to the exercise or settlement of Options or SARs pursuant to Section 16.2 and Shares withheld or reacquired by the Company in satisfaction of tax withholding obligations pursuant to the vesting or settlement of Full Value Awards pursuant to Section 16.2 shall again become available for issuance under the Plan.

4.3 **Adjustments for Changes in Capital Structure.** Subject to any required action by the stockholders of the Company and the requirements of Section

409A and Section 424 of the Code to the extent applicable, in the event of any change in the Stock effected without receipt of consideration by the Company, whether through merger, consolidation, reorganization, reincorporation, recapitalization, reclassification, stock dividend, stock split, reverse stock split, split-up, split-off, spin-off, combination of shares, exchange of shares, or similar change in the capital structure of the Company, or in the event of payment of a dividend or distribution to the stockholders of the Company in a form other than Stock (excepting regular, periodic cash dividends) that has a material effect on the Fair Market Value of shares of Stock, appropriate and proportionate adjustments shall be made in the number and kind of shares subject to the Plan and to any outstanding Awards, the annual increase set forth in Section 4.1, the Award limits set forth in Section 5.3, and in the exercise or purchase price per share under any outstanding Award in order to prevent dilution or enlargement of Participants' rights under the Plan. For purposes of the foregoing, conversion of any convertible securities of the Company shall not be treated as "effected without receipt of consideration by the Company." If a majority of the shares which are of the same class as the shares that are subject to outstanding Awards are exchanged for, converted into, or otherwise become (whether or not pursuant to an Ownership Change Event) shares of another corporation (the "***New Shares***"), the Committee may unilaterally amend the outstanding Awards to provide that such Awards are for New Shares. In the event of any such amendment, the number of shares subject to, and the exercise or purchase price per share of, the outstanding Awards shall be adjusted in a fair and equitable manner as determined by the Committee, in its discretion and in accordance with Section 409A and Section 424 of the Code to the extent applicable. Any fractional share resulting from an adjustment pursuant to this Section shall be rounded down to the nearest whole number and the exercise or purchase price per share shall be rounded up to the nearest whole cent. In no event may the exercise or purchase price, if any, under any Award be decreased to an amount less than the par value, if any, of the stock subject to such Award. The Committee in its discretion, may also make such adjustments in the terms of any Award to reflect, or related to, such changes in the capital structure of the Company or distributions as it deems appropriate, including modification of Performance Goals, Performance Award Formulas and Performance Periods. The adjustments determined by the Committee pursuant to this Section shall be final, binding and conclusive.

4.4 **Assumption or Substitution of Awards.** The Committee may, without affecting the number of shares of Stock reserved or available hereunder, authorize the issuance or assumption of equity awards under this Plan in connection with any merger, consolidation, acquisition of property or stock, or reorganization upon such terms and conditions as it may deem appropriate, subject to compliance with Section 409A and any other applicable provisions of the Code, without reducing the number of shares otherwise available for issuance under the Plan. In addition, subject to compliance with applicable laws, and listing requirements, shares available for grant under a stockholder approved plan of an acquired company (as appropriately adjusted to reflect the transaction) may be used for awards under the Plan to individuals who were not Employees or Directors of the Participating Company Group prior to the transaction and shall not reduce the number of shares otherwise available for issuance under the Plan.

5. **Eligibility, Participation and Award Limitations.**

5.1 **Persons Eligible for Awards.** Awards may be granted only to Employees, Consultants and Directors.

5.2 **Participation in the Plan.** Awards are granted solely at the discretion of the Committee. Eligible persons may be granted more than one Award. However, eligibility in accordance with this Section shall not entitle any person to be granted an Award, or, having been granted an Award, to be granted an additional Award.

5.3 **Incentive Stock Option Limitations.**

(a) ***Maximum Number of Shares Issuable Pursuant to Incentive Stock Options.*** Subject to adjustment as provided in Section 4.3, the maximum aggregate number of shares of Stock that may be issued under the Plan pursuant to the exercise of Incentive Stock Options shall not exceed _________[1] shares. The maximum aggregate number of shares of Stock that may be issued under the Plan pursuant to all Awards other than Incentive Stock Options shall be the number of shares determined in accordance with Section 4.1, subject to adjustment as provided in Sections 4.2 and 4.3.

(b) ***Persons Eligible.*** An Incentive Stock Option may be granted only to a person who, on the effective date of grant, is an Employee of the Company, a Parent Corporation or a Subsidiary Corporation (each being an "***ISO-Qualifying Corporation***"). Any person who is not an Employee of an ISO-Qualifying Corporation on the effective date of the grant of an Option to such person may be granted only a Nonstatutory Stock Option.

(c) ***Fair Market Value Limitation.*** To the extent that options designated as Incentive Stock Options (granted under all stock plans of the Participating Company Group, including the Plan) become exercisable by a Participant for the first time during any calendar year for stock having a Fair Market Value greater than One Hundred Thousand Dollars ($100,000), the portion of such options which exceeds such amount shall be treated as Nonstatutory Stock Options. For purposes of this Section, options designated as Incentive Stock Options shall be taken into account in the order in which they were granted, and the Fair Market Value of stock shall be determined as of the time the option with respect to such stock is granted. If the Code is amended to provide for a limitation different from that set forth in this Section, such different limitation shall be deemed incorporated herein effective as of the date and with respect to such Options as required or permitted by such amendment to the Code. If an Option is treated as an Incentive Stock Option in part and as a Nonstatutory Stock Option in part by reason of the limitation set forth in this Section, the Participant may designate which portion of such Option the Participant is exercising. In the absence of such designation, the Participant shall be deemed to have exercised the Incentive Stock Option portion of the Option first. Upon exercise of the Option, shares issued pursuant to each such portion shall be separately identified.

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1 Note to Company: Recommend setting this limit at 3x the limit specified in Section 4.1 (so as to provide cushion for subsequent evergreen increases over the life of the plan).

5.4 **Nonemployee Director Award Limit.** The limitations in this Section 5.4 shall apply commencing with the annual period that begins on the Company's first Annual Meeting of Stockholders following the Effective Date. The aggregate value of all compensation granted or paid (as calculated without giving effect to any compensation payment deferral election or any expense reimbursement payments), as applicable, to any individual for service as a Nonemployee Director with respect to any period commencing on the date of the Company's Annual Meeting of Stockholders for a particular year and ending on the day immediately prior to the date of the Company's Annual Meeting of Stockholders for the next subsequent year, including Awards granted and cash fees paid by the Company to such Non-Employee Director, will not exceed (i) $600,000 in total value or (ii) in the event such Non-Employee Director is first appointed or elected to the Board during such period, $1,000,000 in total value, in each case calculating the value of any Awards based on the grant date fair value of such Awards for financial reporting purposes.

6. **Stock Options.**

Options shall be evidenced by Award Agreements specifying the number of shares of Stock covered thereby, in such form as the Committee shall establish. Such Award Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

6.1 **Exercise Price.** The exercise price for each Option shall be established in the discretion of the Committee; provided, however, that (a) the exercise price per share shall be not less than the Fair Market Value of a share of Stock on the effective date of grant of the Option and (b) no Incentive Stock Option granted to a Ten Percent Owner shall have an exercise price per share less than one hundred ten percent (110%) of the Fair Market Value of a share of Stock on the effective date of grant of the Option. Notwithstanding the foregoing, an Option (whether an Incentive Stock Option or a Nonstatutory Stock Option) may be granted with an exercise price less than the minimum exercise price set forth above if such Option is granted pursuant to an assumption or substitution for another option in a manner that would qualify under the provisions of Section 409A or Section 424(a) of the Code.

6.2 **Exercisability and Term of Options.** Options shall be exercisable at such time or times, or upon such event or events, and subject to such terms, conditions, performance criteria and restrictions as shall be determined by the Committee and set forth in the Award Agreement evidencing such Option; provided, however,

that (a) no Option shall be exercisable after the expiration of ten (10) years after the effective date of grant of such Option, (b) no Incentive Stock Option granted to a Ten Percent Owner shall be exercisable after the expiration of five (5) years after the effective date of grant of such Option and (c) no Option granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable until at least six (6) months following the date of grant of such Option (except in the event of such Employee's death, disability or retirement, upon a Change in Control, or as otherwise permitted by the Worker Economic Opportunity Act). Subject to the foregoing, unless otherwise specified by the Committee in the grant of an Option, each Option shall terminate ten (10) years after the effective date of grant of the Option, unless earlier terminated in accordance with its provisions.

6.3 **Payment of Exercise Price.**

(a) ***Forms of Consideration Authorized.*** Except as otherwise provided below, payment of the exercise price for the number of shares of Stock being purchased pursuant to any Option shall be made (i) in cash, by check or in cash equivalent; (ii) if permitted by the Committee and subject to the limitations contained in Section 6.3(b), by means of (1) a Cashless Exercise, (2) a Stock Tender Exercise or (3) a Net Exercise (for Nonstatutory Stock Options); (iii) by such other consideration as may be approved by the Committee from time to time to the extent permitted by applicable law, or (iv) if permitted by the Committee, by any combination thereof. The Committee may at any time or from time to time grant Options which do not permit all of the foregoing forms of consideration to be used in payment of the exercise price or which otherwise restrict one or more forms of consideration.

(b) ***Limitations on Forms of Consideration.***

(i) **Cashless Exercise.** A "***Cashless Exercise***" means the delivery of a properly executed notice of exercise together with irrevocable instructions to a broker providing for the assignment to the Company of the proceeds of a sale or loan with respect to some or all of the shares being acquired upon the exercise of the Option (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System). The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to establish, decline to approve or terminate any program or procedures for the exercise of Options by means of a Cashless Exercise, including with respect to one or more Participants specified by the Company notwithstanding that such program or procedures may be available to other Participants.

(ii) **Stock Tender Exercise.** A "***Stock Tender Exercise***" means the delivery of a properly executed exercise notice accompanied by a Participant's tender to the Company, or attestation to the ownership, in a form acceptable to the Company of whole shares of Stock owned by the Participant having a Fair Market Value that does not exceed the aggregate exercise price for the shares with respect to which the Option is exercised. A Stock Tender Exercise shall not be permitted if it would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption of the Company's stock. If required by the Company, an Option may not be exercised by tender to the Company, or attestation to the ownership, of shares of Stock unless such shares either have been owned by the Participant for a period of time required by the Company (and not used for another option exercise by attestation during such period) or were not acquired, directly or indirectly, from the Company.

(iii) **Net Exercise.** A "***Net Exercise***" means the delivery of a properly executed exercise notice followed by a procedure pursuant to which (1) the Company will reduce the number of shares otherwise issuable to a Participant upon the exercise of an Option by the largest whole number of shares having a Fair Market Value that does not exceed the aggregate exercise price for the shares with respect to which the Option is exercised, and (2) the Participant shall pay to the Company in cash the remaining balance of such aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued.

6.4 **Effect of Termination of Service**.

(a) ***Option Exercisability.*** Subject to earlier termination of the Option as otherwise provided by this Plan and unless otherwise provided by the Committee or in an Award Agreement, an Option shall be exercisable after the Participant's termination of Service to the extent it is then vested only during the applicable time period specified below, or if applicable, such other period provided in the applicable Award Agreement or other written agreement between the Participant and the Company; provided however, in no event may such Option be exercised after expiration of its maximum permitted term as set forth in the Award Agreement evidencing such Option or any earlier date the Option is terminated in connection with a Change in Control (the "***Option Expiration Date***"), and thereafter shall terminate if not exercised during such period.

(i) **Disability.** If the Participant's Service terminates because of the Disability of the Participant, the Option, to the extent unexercised and exercisable for vested shares on the date on which the Participant's Service terminated, may be exercised by the Participant (or the Participant's guardian or legal representative) at any time prior to the expiration of twelve (12) months after the date on which the Participant's Service terminated.

(ii) **Death.** If the Participant's Service terminates because of the death of the Participant, the Option, to the extent unexercised and exercisable for vested shares on the date on which the Participant's Service terminated, may be exercised by the Participant's legal representative or other person who acquired the right to exercise the Option by reason of the Participant's death at any time prior to the expiration of twelve (12) months after the date on which the Participant's Service terminated. The Participant's Service shall be deemed to have terminated on account of death if the Participant dies within three (3) months after the Participant's termination of Service for any reason other than Cause.

(iii) **Termination for Cause.** Notwithstanding any other provision of the Plan to the contrary, if the Participant's Service is terminated for Cause or if, following the Participant's termination of Service and during any period in which the Option otherwise would remain exercisable, the Participant engages in any act that would constitute Cause, the Option shall terminate in its entirety and cease to be exercisable immediately upon such termination of Service or act.

(iv) **Other Termination of Service.** If the Participant's Service terminates for any reason, except Disability, death or Cause, the Option, to the extent unexercised and exercisable for vested shares on the date on which the Participant's Service terminated, may be exercised by the Participant at any time prior to the expiration of three (3) months after the date on which the Participant's Service terminated.

(b) ***Extension if Exercise Prevented by Law.*** Notwithstanding the foregoing, other than termination of Service for Cause, if the exercise of an Option within the Post-Termination Exercise Period is prevented by the provisions of Section 14 below or other applicable law, the Option shall remain exercisable until the later of (i) thirty (30) days after the date such exercise first would no longer be prevented by such provisions or (ii) the end of the applicable Post-Termination Exercise Period, but in any event no later than the Option Expiration Date.

6.5 **Transferability of Options.** During the lifetime of the Participant, an Option shall be exercisable only by the Participant or the Participant's guardian or legal representative. An Option shall not be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance, or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or by the laws of descent and distribution. Notwithstanding the foregoing, to the extent

permitted by the Committee, in its discretion, and set forth in the Award Agreement evidencing such Option, an Option shall be assignable or transferable subject to the applicable limitations, if any, described in the General Instructions to Form S-8 under the Securities Act or, in the case of an Incentive Stock Option, only as permitted by applicable regulations under Section 421 of the Code in a manner that does not disqualify such Option as an Incentive Stock Option.

7. **Stock Appreciation Rights.**

Stock Appreciation Rights shall be evidenced by Award Agreements specifying the number of shares of Stock subject to the Award, in such form as the Committee shall establish. Such Award Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

7.1 **Types of SARs Authorized.** SARs may be granted in tandem with all or any portion of a related Option (a "***Tandem SAR***") or may be granted independently of any Option (a "***Freestanding SAR***"). A Tandem SAR may only be granted concurrently with the grant of the related Option.

7.2 **Exercise Price.** The exercise price for each SAR shall be established in the discretion of the Committee; provided, however, that (a) the exercise price per share subject to a Tandem SAR shall be the exercise price per share under the related Option and (b) the exercise price per share subject to a Freestanding SAR shall be not less than the Fair Market Value of a share of Stock on the effective date of grant of the SAR. Notwithstanding the foregoing, an SAR may be granted with an exercise price lower than the minimum exercise price set forth above if such SAR is granted pursuant to an assumption or substitution for another stock appreciation right in a manner that would qualify under the provisions of Section 409A.

7.3 **Exercisability and Term of SARs.**

(a) ***Tandem SARs.*** Tandem SARs shall be exercisable only at the time and to the extent, and only to the extent, that the related Option is exercisable, subject to such provisions as the Committee may specify where the Tandem SAR is granted with respect to less than the full number of shares of Stock subject to the related Option. The Committee may, in its discretion, provide in any Award Agreement evidencing a Tandem SAR that such SAR may not be exercised without the advance approval of the Company and, if such approval is not given, then the Option shall nevertheless remain exercisable in accordance with its terms. A Tandem SAR shall terminate and cease to be exercisable no later than the date on which the related Option expires or is terminated or canceled. Upon the exercise of a Tandem SAR with respect to some or all of the shares subject to such SAR, the related Option shall be canceled automatically as to the number of shares with respect to which the Tandem SAR was exercised. Upon the exercise of an Option related to a Tandem SAR as to some or all of the shares subject to such Option, the related Tandem SAR shall be canceled automatically as to the number of shares with respect to which the related Option was exercised.

(b) ***Freestanding SARs.*** Freestanding SARs shall be exercisable at such time or times, or upon such event or events, and subject to such terms, conditions, performance criteria and restrictions as shall be determined by the Committee and set forth in the Award Agreement evidencing such SAR; provided, however, that (i) no Freestanding SAR shall be exercisable after the expiration of ten (10) years after the effective date of grant of such SAR and (ii) no Freestanding SAR granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable until at least six (6) months following the date of grant of such SAR (except in the event of such Employee's death, disability or retirement, upon a Change in Control, or as otherwise permitted by the Worker Economic Opportunity Act). Subject to the foregoing, unless otherwise specified by the Committee in the grant of a Freestanding SAR, each Freestanding SAR shall terminate ten (10) years after the effective date of grant of the SAR, unless earlier terminated in accordance with its provisions.

7.4 **Exercise of SARs.** Upon the exercise (or deemed exercise pursuant to Section 7.5) of an SAR, the Participant (or the Participant's legal representative or other person who acquired the right to exercise the SAR by reason of the Participant's death) shall be entitled to receive payment of an amount for each share with respect to which the SAR is exercised equal to the excess, if any, of the Fair Market Value of a share of Stock on the date of exercise of the SAR over the exercise price. Payment of such amount shall be made (a) in the case of a Tandem SAR, solely in shares of Stock in a lump sum upon the date of exercise of the SAR and (b) in the case of a Freestanding SAR, in cash, shares of Stock, or any combination thereof as determined by the Committee and set forth in the Award Agreement, in a lump sum upon the date of exercise of the SAR. When payment is to be made in shares of Stock, the number of shares to be issued shall be determined on the basis of the Fair Market Value of a share of Stock on the date of exercise of the SAR. For purposes of Section 7, an SAR shall be deemed exercised on the date on which the Company receives notice of exercise from the Participant or as otherwise provided in Section 7.5.

7.5 **Deemed Exercise of SARs.** If, on the date on which an SAR would otherwise terminate or expire, the SAR by its terms remains exercisable immediately prior to such termination or expiration and, if so exercised, would result in a payment to the holder of such SAR, then any portion of such SAR which has not previously been exercised shall automatically be deemed to be exercised as of such date with respect to such portion. The Company may elect to discontinue the deemed exercise of SARs pursuant to this Section 7.5 at any time upon notice to a Participant or to apply the deemed exercise feature only to certain groups of Participants. The deemed exercise of a SAR pursuant to this Section 7.5 shall apply only to a SAR that has been timely accepted by a Participant under procedures specified by the Company from time to time.

7.6 **Effect of Termination of Service.** Subject to earlier termination of the SAR as otherwise provided herein and unless otherwise provided by the Committee or in an Award Agreement, an SAR shall be exercisable after a Participant's termination of Service only to the extent and during the applicable time period determined in accordance with Section 6.4 (treating the SAR as if it were an Option) and thereafter shall terminate.

7.7 **Transferability of SARs.** During the lifetime of the Participant, an SAR shall be exercisable only by the Participant or the Participant's guardian or legal representative. An SAR shall not be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance, or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or by the laws of descent and distribution. Notwithstanding the foregoing, to the extent permitted by the Committee, in its discretion, and set forth in the Award Agreement evidencing such Award, a Tandem SAR related to a Nonstatutory Stock Option or a Freestanding SAR shall be assignable or transferable subject to the applicable limitations, if any, described in the General Instructions to Form S-8 under the Securities Act.

8. **Restricted Stock Awards.**

Restricted Stock Awards shall be evidenced by Award Agreements specifying whether the Award is a Restricted Stock Bonus or a Restricted Stock Purchase Right and the number of shares of Stock subject to the Award, in such form as the Committee shall establish. Such Award Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

8.1 **Types of Restricted Stock Awards Authorized.** Restricted Stock Awards may be granted in the form of either a Restricted Stock Bonus or a Restricted Stock Purchase Right. Restricted Stock Awards may be granted upon such conditions as the Committee shall determine, including, without limitation, upon the attainment of one or more Performance Goals described in Section 10.4. If either the grant of or satisfaction of Vesting Conditions applicable to a Restricted Stock Award is to be contingent upon the attainment of one or more Performance Goals, the Committee shall follow procedures substantially equivalent to those set forth in Sections 10.3 through 10.5(a).

8.2 **Purchase Price.** The purchase price for shares of Stock issuable under each Restricted Stock Purchase Right shall be established by the Committee in its discretion. No monetary payment (other than applicable tax withholding) shall be required as a condition of receiving shares of Stock pursuant to a Restricted Stock Bonus, the

consideration for which shall be services actually rendered to a Participating Company or for its benefit. Notwithstanding the foregoing, if required by applicable state corporate law, the Participant shall furnish consideration in the form of cash or past services rendered to a Participating Company or for its benefit having a value not less than the par value of the shares of Stock subject to a Restricted Stock Award.

8.3 **Purchase Period.** A Restricted Stock Purchase Right shall be exercisable within a period established by the Committee, which shall in no event exceed thirty (30) days from the effective date of the grant of the Restricted Stock Purchase Right.

8.4 **Payment of Purchase Price.** Except as otherwise provided below, payment of the purchase price for the number of shares of Stock being purchased pursuant to any Restricted Stock Purchase Right shall be made (a) in cash, by check or in cash equivalent, (b) by such other consideration as may be approved by the Committee from time to time to the extent permitted by applicable law, or (c) by any combination thereof.

8.5 **Vesting and Restrictions on Transfer.** Shares issued pursuant to any Restricted Stock Award may (but need not) be made subject to Vesting Conditions based upon the satisfaction of such Service requirements, conditions, restrictions or performance criteria, including, without limitation, Performance Goals as described in Section 10.4, as shall be established by the Committee and set forth in the Award Agreement evidencing such Award. During any period in which shares acquired pursuant to a Restricted Stock Award remain subject to Vesting Conditions, such shares may not be sold, exchanged, transferred, pledged, assigned or otherwise disposed of other than pursuant to an Ownership Change Event or as provided in Section 8.8. The Committee, in its discretion, may provide in any Award Agreement evidencing a Restricted Stock Award that, if the satisfaction of Vesting Conditions with respect to any shares subject to such Restricted Stock Award would otherwise occur on a day on which the sale of such shares would violate the provisions of the Trading Compliance Policy, then satisfaction of the Vesting Conditions automatically shall be determined on the next trading day on which the sale of such shares would not violate the Trading Compliance Policy. Upon request by the Company, each Participant shall execute any agreement evidencing such transfer restrictions prior to the receipt of shares of Stock hereunder and shall promptly present to the Company any and all certificates representing shares of Stock acquired hereunder for the placement on such certificates of appropriate legends evidencing any such transfer restrictions.

8.6 **Voting Rights; Dividends and Distributions.** Except as provided in this Section, Section 8.5 and any Award Agreement, during any period in which shares acquired pursuant to a Restricted Stock Award remain subject to Vesting Conditions, the Participant shall have all of the rights of a stockholder of the Company holding shares of Stock, including the right to vote such shares and to receive all dividends and other distributions paid with respect to such shares; provided, however, that if so determined by the Committee and provided by the Award Agreement, such dividends and distributions shall be subject to the same Vesting Conditions as the shares subject to the Restricted Stock Award with respect to which such dividends or distributions were paid, and otherwise shall be paid no later than the end of the calendar year in which such dividends or distributions are paid to stockholders (or, if later, the 15th day of the third month following the date such dividends or distributions are paid to stockholders). In the event of a dividend or distribution paid in shares of Stock or other property or any other adjustment made upon a change in the capital structure of the Company as described in Section 4.3, any and all new, substituted or additional securities or other property (other than regular, periodic cash dividends) to which the Participant is entitled by reason of the Participant's Restricted Stock Award shall be immediately subject to the same Vesting Conditions as the shares subject to the Restricted Stock Award with respect to which such dividends or distributions were paid or adjustments were made.

8.7 **Effect of Termination of Service.** Unless otherwise provided by the Committee in the Award Agreement evidencing a Restricted Stock Award, if a Participant's Service terminates for any reason, whether voluntary or involuntary (including the Participant's death or disability), then (a) the Company shall have the option to repurchase for the purchase price paid by the Participant any shares acquired by the Participant pursuant to a Restricted Stock Purchase Right which remain subject to Vesting Conditions as of the date of the Participant's termination of Service and (b) the Participant shall forfeit to the Company any shares acquired by the Participant pursuant to a Restricted Stock Bonus which remain subject to Vesting Conditions as of the date of the Participant's termination of Service. The Company shall have the right to assign at any time any repurchase right it may have, whether or not such right is then exercisable, to one or more persons as may be selected by the Company.

8.8 **Nontransferability of Restricted Stock Award Rights.** Rights to acquire shares of Stock pursuant to a Restricted Stock Award shall not be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or the laws of descent and distribution. All rights with respect to a Restricted Stock Award granted to a Participant hereunder shall be exercisable during his or her lifetime only by such Participant or the Participant's guardian or legal representative.

9. **<u>Restricted Stock Units</u>.**

Restricted Stock Unit Awards shall be evidenced by Award Agreements specifying the number of Restricted Stock Units subject to the Award, in such form as the Committee shall establish. Such Award Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

9.1 **Grant of Restricted Stock Unit Awards.** Restricted Stock Unit Awards may be granted upon such conditions as the Committee shall determine, including, without limitation, upon the attainment of one or more Performance Goals described in Section 10.4. If either the grant of a Restricted Stock Unit Award or the Vesting Conditions with respect to such Award is to be contingent upon the attainment of one or more Performance Goals, the Committee shall follow procedures substantially equivalent to those set forth in Sections 10.3 through 10.5(a).

9.2 **Purchase Price.** No monetary payment (other than applicable tax withholding, if any) shall be required as a condition of receiving a Restricted Stock Unit Award, the consideration for which shall be services actually rendered to a Participating Company or for its benefit. Notwithstanding the foregoing, if required by applicable state corporate law, the Participant shall furnish consideration in the form of cash or past services rendered to a Participating Company or for its benefit having a value not less than the par value of the shares of Stock issued upon settlement of the Restricted Stock Unit Award.

9.3 **Vesting.** Restricted Stock Unit Awards may (but need not) be made subject to Vesting Conditions based upon the satisfaction of such Service requirements, conditions, restrictions or performance criteria, including, without limitation, Performance Goals as described in Section 10.4, as shall be established by the Committee and set forth in the Award Agreement evidencing such Award.

9.4 **Voting Rights, Dividend Equivalent Rights and Distributions.** Participants shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of such shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). However, the Committee, in its discretion, may provide in the Award Agreement evidencing any Restricted Stock Unit Award that the Participant shall be entitled to Dividend Equivalent Rights with respect to the payment of cash dividends on Stock during the period beginning on the date such Award is granted and ending, with respect to each share subject to the Award, on the earlier of the date the Award is settled or the date on which it is terminated. Dividend Equivalent Rights, if any, shall be paid by crediting the Participant with a cash amount or with additional whole Restricted Stock Units as of the date of payment of such cash dividends on Stock, as determined by the Committee. The number of additional Restricted Stock Units (rounded to the nearest whole number), if any, to be credited shall be determined by dividing (a) the amount of

cash dividends paid on the dividend payment date with respect to the number of shares of Stock represented by the Restricted Stock Units previously credited to the Participant by (b) the Fair Market Value per share of Stock on such date. If so determined by the Committee and provided by the Award Agreement, such cash amount or additional Restricted Stock Units shall be subject to the same terms and conditions (including vesting terms) and shall be settled in the same manner and at the same time as the Restricted Stock Units originally subject to the Restricted Stock Unit Award. In the event of a dividend or distribution paid in shares of Stock or other property or any other adjustment made upon a change in the capital structure of the Company as described in Section 4.3, appropriate adjustments shall be made in the Participant's Restricted Stock Unit Award so that it represents the right to receive upon settlement any and all new, substituted or additional securities or other property (other than regular, periodic cash dividends) to which the Participant would be entitled by reason of the shares of Stock issuable upon settlement of the Award, and all such new, substituted or additional securities or other property shall be immediately subject to the same Vesting Conditions as are applicable to the Award.

9.5 **Effect of Termination of Service.** Unless otherwise provided by the Committee and set forth in the Award Agreement evidencing a Restricted Stock Unit Award, if a Participant's Service terminates for any reason, whether voluntary or involuntary (including the Participant's death or disability), then the Participant shall forfeit to the Company any Restricted Stock Units pursuant to the Award which remain subject to Vesting Conditions as of the date of the Participant's termination of Service.

9.6 **Settlement of Restricted Stock Unit Awards.** The Company shall issue to a Participant on the date on which Restricted Stock Units subject to the Participant's Restricted Stock Unit Award vest or on such other date determined by the Committee in compliance with Section 409A, if applicable, and set forth in the Award Agreement one (1) share of Stock (and/or any other new, substituted or additional securities or other property pursuant to an adjustment described in Section 9.4) for each Restricted Stock Unit then becoming vested or otherwise to be settled on such date, subject to the withholding of applicable taxes, if any. The Committee, in its discretion, may provide in any Award Agreement evidencing a Restricted Stock Unit Award that if the settlement date with respect to any shares issuable upon vesting of Restricted Stock Units would otherwise occur on a day on which the sale of such shares would violate the provisions of the Trading Compliance Policy, then the settlement date shall be deferred until the next trading day on which the sale of such shares would not violate the Trading Compliance Policy but in any event no later than the 15th day of the third calendar month following the year in which such Restricted Stock Units vest. If permitted by the Committee, the Participant may elect, consistent with the requirements of Section 409A, to defer receipt of all or any portion of the shares of Stock or other property otherwise issuable to the Participant pursuant to this Section, and such deferred issuance date(s) and amount(s) elected by the Participant shall be set forth in the Award Agreement or an Election (as defined in Section 15.2). Notwithstanding the foregoing, the Committee, in its discretion, may provide in an Award Agreement for settlement of any Restricted Stock Unit Award by payment to the Participant in cash of an amount equal to the Fair Market Value on the payment date of the shares of Stock or other property otherwise issuable to the Participant pursuant to this Section.

9.7 **Nontransferability of Restricted Stock Unit Awards.** The right to receive shares pursuant to a Restricted Stock Unit Award shall not be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance, or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or by the laws of descent and distribution. All rights with respect to a Restricted Stock Unit Award granted to a Participant hereunder shall be exercisable during his or her lifetime only by such Participant or the Participant's guardian or legal representative.

10. **Performance Awards.**

Performance Awards shall be evidenced by Award Agreements in such form as the Committee shall establish. Such Award Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

10.1 **Types of Performance Awards Authorized.** Performance Awards may be granted in the form of either Performance Shares or Performance Units. Each Award Agreement evidencing a Performance Award shall specify the number of Performance Shares or Performance Units subject thereto, the Performance Award Formula, the Performance Goal(s) and Performance Period applicable to the Award, and the other terms, conditions and restrictions of the Award.

10.2 **Initial Value of Performance Shares and Performance Units.** Unless otherwise provided by the Committee in granting a Performance Award, each Performance Share shall have an initial monetary value equal to the Fair Market Value of one (1) share of Stock, subject to adjustment as provided in Section 4.3, on the effective date of grant of the Performance Share, and each Performance Unit shall have an initial monetary value established by the Committee at the time of grant. The final value payable to the Participant in settlement of a Performance Award determined on the basis of the applicable Performance Award Formula will depend on the extent to which Performance Goals established by the Committee are attained within the applicable Performance Period established by the Committee.

10.3 **Establishment of Performance Period, Performance Goals and Performance Award Formula.** In granting each Performance Award, the Committee shall establish in writing the applicable Performance Period, Performance Award Formula and one or more Performance Goals which, when measured at the end of the Performance Period, shall determine on the basis of the Performance Award Formula the final value of the Performance Award to be paid to the Participant. The Company shall notify each Participant granted a Performance Award of the terms of such Award, including the Performance Period, Performance Goal(s) and Performance Award Formula.

10.4 **Measurement of Performance Goals.** Performance Goals shall be established by the Committee on the basis of targets to be attained ("***Performance Targets***") with respect to one or more measures of objective or subjective business, financial, or individual performance or other performance criteria established by the Committee (each, a "***Performance Measure***"), subject to the following:

(a) ***Performance Measures.*** Unless otherwise determined by the Committee no later than the grant of the Performance Award, Performance Measures based on objective criteria shall be calculated in accordance with the Company's financial statements, or, if such measures are not reported in the Company's financial statements, they shall be calculated in accordance with generally accepted accounting principles, a method used generally in the Company's industry, or in accordance with a methodology established by the Committee prior to the grant of the Performance Award. Performance Measures based on subjective criteria shall be determined on the basis established by the Committee in granting the Award. As specified by the Committee, Performance Measures may be calculated with respect to the Company and each Subsidiary Corporation consolidated therewith for financial reporting purposes, one or more Subsidiary Corporations or such division or other business unit of any of them selected by the Committee. Unless otherwise determined by the Committee no later than the grant of the Performance Award, the Performance Measures applicable to the Performance Award shall be calculated prior to the accrual of expense for any Performance Award for the same Performance Period and excluding the effect (whether positive or negative) on the Performance Measures of any change in accounting standards or any unusual or infrequently occurring event or transaction, as determined by the Committee, occurring after the establishment of the Performance Goals applicable to the Performance Award. Each such adjustment, if any, shall be made solely for the purpose of providing a consistent basis from period to period for the calculation of Performance Measures in order to prevent the dilution or enlargement of the Participant's rights with respect to a Performance Award.

(b) ***Performance Targets.*** Performance Targets may include a minimum, maximum, target level and intermediate levels of performance, with the final value of a Performance Award determined under the applicable Performance Award Formula by the Performance Target level attained during the applicable Performance Period. A Performance Target may be stated as an absolute value, an increase or decrease in a value, or as a value determined relative to an index, budget or other standard selected by the Committee.

10.5 **Settlement of Performance Awards.**

(a) ***Determination of Final Value.*** As soon as practicable following the completion of the Performance Period applicable to a Performance Award,

the Committee shall determine the extent to which the applicable Performance Goals have been attained and the resulting final value of the Award earned by the Participant and to be paid upon its settlement in accordance with the applicable Performance Award Formula.

(b) ***Discretionary Adjustment of Award Formula.*** In its discretion, the Committee may, either at the time it grants a Performance Award or at any time thereafter, provide for the positive or negative adjustment of the Performance Award Formula applicable to a Performance Award to reflect such Participant's individual performance in his or her position with the Company or such other factors as the Committee may determine.

(c) ***Effect of Leaves of Absence.*** Unless otherwise required by law or a Participant's Award Agreement, payment of the final value, if any, of a Performance Award held by a Participant who has taken in excess of thirty (30) days in unpaid leaves of absence during a Performance Period shall be prorated on the basis of the number of days of the Participant's Service during the Performance Period during which the Participant was not on an unpaid leave of absence.

(d) ***Notice to Participants.*** As soon as practicable following the Committee's determination in accordance with Sections 10.5(a) and (b), the Company shall notify each Participant of the determination of the Committee.

(e) ***Payment in Settlement of Performance Awards.*** As soon as practicable following the Committee's determination in accordance with Sections 10.5(a) and (b), but in any event within the Short-Term Deferral Period described in Section 15.1 (except as otherwise provided below or consistent with the requirements of Section 409A), payment shall be made to each eligible Participant (or such Participant's legal representative or other person who acquired the right to receive such payment by reason of the Participant's death) of the final value of the Participant's Performance Award. Payment of such amount shall be made in cash, shares of Stock, or a combination thereof as determined by the Committee and set forth in the Award Agreement. Unless otherwise provided in the Award Agreement evidencing a Performance Award, payment shall be made in a lump sum. If permitted by the Committee, the Participant may elect, consistent with the requirements of Section 409A, to defer receipt of all or any portion of the payment to be made to the Participant pursuant to this Section, and such deferred payment date(s) elected by the Participant shall be set forth in the Award Agreement or an Election. If any payment is to be made on a deferred basis, the Committee may, but shall not be obligated to, provide for the payment during the deferral period of Dividend Equivalent Rights or interest.

(f) ***Provisions Applicable to Payment in Shares.*** If payment is to be made in shares of Stock, the number of such shares shall be determined by dividing the final value of the Performance Award by the Fair Market Value of a share of Stock determined by the method specified in the Award Agreement. Shares of Stock issued in payment of any Performance Award may be fully vested and freely transferable shares or may be shares of Stock subject to Vesting Conditions as provided in Section 8.5. Any shares subject to Vesting Conditions shall be evidenced by an appropriate Award Agreement and shall be subject to the provisions of Sections 8.5 through 8.8 above.

10.6 **Voting Rights; Dividend Equivalent Rights and Distributions.** Participants shall have no voting rights with respect to shares of Stock represented by Performance Share Awards until the date of the issuance of such shares, if any (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). However, the Committee, in its discretion, may provide in the Award Agreement evidencing any Performance Share Award that the Participant shall be entitled to Dividend Equivalent Rights with respect to the payment of cash dividends on Stock during the period beginning on the date the Award is granted and ending, with respect to each share subject to the Award, on the earlier of the date on which the Performance Shares are settled or the date on which they are forfeited. Such Dividend Equivalent Rights, if any, shall be credited to the Participant either in cash or in the form of additional whole Performance Shares as of the date of payment of such cash dividends on Stock, as determined by the Committee. The number of additional Performance Shares (rounded to the nearest whole number), if any, to be so credited shall be determined by dividing (a) the amount of cash dividends paid on the dividend payment date with respect to the number of shares of Stock represented by the Performance Shares previously credited to the Participant by (b) the Fair Market Value per share of Stock on such date. Dividend Equivalent Rights, if any, shall be accumulated and paid to the extent that the related Performance Shares become nonforfeitable. Settlement of Dividend Equivalent Rights may be made in cash, shares of Stock, or a combination thereof as determined by the Committee, and may be paid on the same basis as settlement of the related Performance Share as provided in Section 10.5. Dividend Equivalent Rights shall not be paid with respect to Performance Units. In the event of a dividend or distribution paid in shares of Stock or other property or any other adjustment made upon a change in the capital structure of the Company as described in Section 4.3, appropriate adjustments shall be made in the Participant's Performance Share Award so that it represents the right to receive upon settlement any and all new, substituted or additional securities or other property (other than regular, periodic cash dividends) to which the Participant would be entitled by reason of the shares of Stock issuable upon settlement of the Performance Share Award, and all such new, substituted or additional securities or other property shall be immediately subject to the same Performance Goals as are applicable to the Award.

10.7 **Effect of Termination of Service.** Unless otherwise provided by the Committee and set forth in the Award Agreement evidencing a Performance Award, the effect of a Participant's termination of Service on the Performance Award shall be as follows:

(a) ***Death or Disability.*** If the Participant's Service terminates because of the death or Disability of the Participant before the completion of the Performance Period applicable to the Performance Award, the final value of the Participant's Performance Award shall be determined by the extent to which the applicable Performance Goals have been attained with respect to the entire Performance Period and shall be prorated based on the number of months of the Participant's Service during the Performance Period. Payment shall be made following the end of the Performance Period in any manner permitted by Section 10.5.

(b) ***Other Termination of Service.*** If the Participant's Service terminates for any reason except death or Disability before the completion of the Performance Period applicable to the Performance Award, such Award shall be forfeited in its entirety; provided, however, that in the event of an involuntary termination of the Participant's Service, the Committee, in its discretion, may waive the automatic forfeiture of all or any portion of any such Award and determine the final value of the Performance Award in the manner provided by Section 10.7(a). Payment of any amount pursuant to this Section shall be made following the end of the Performance Period in any manner permitted by Section 10.5.

10.8 **Nontransferability of Performance Awards.** Prior to settlement in accordance with the provisions of the Plan, no Performance Award shall be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance, or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or by the laws of descent and distribution. All rights with respect to a Performance Award granted to a Participant hereunder shall be exercisable during his or her lifetime only by such Participant or the Participant's guardian or legal representative.

11. **<u>Cash-Based Awards and Other Stock-Based Awards</u>.**

Cash-Based Awards and Other Stock-Based Awards shall be evidenced by Award Agreements in such form as the Committee shall establish. Such Award Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

11.1 **Grant of Cash-Based Awards.** Subject to the provisions of the Plan, the Committee, at any time and from time to time, may grant Cash-Based Awards to Participants in such amounts and upon such terms and conditions, including the achievement of performance criteria, as the Committee may determine.

11.2 **Grant of Other Stock-Based Awards.** The Committee may grant other types of equity-based or equity-related Awards not otherwise described by the terms of this Plan (including the grant or offer for sale of unrestricted securities, stock-equivalent units, stock appreciation units, securities or debentures convertible into common stock or other forms determined by the Committee) in such amounts and subject to such terms and conditions as the Committee shall determine. Other Stock-Based Awards may be made available as a form of payment in the settlement of other Awards or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may involve the transfer of actual shares of Stock to Participants, or payment in cash or otherwise of amounts based on the value of Stock and may include, without limitation, Awards designed to comply with or take advantage of the applicable local laws of jurisdictions other than the United States.

11.3 **Value of Cash-Based and Other Stock-Based Awards.** Each Cash-Based Award shall specify a monetary payment amount or payment range as determined by the Committee. Each Other Stock-Based Award shall be expressed in terms of shares of Stock or units based on such shares of Stock, as determined by the Committee. The Committee may require the satisfaction of such Service requirements, conditions, restrictions or performance criteria, including, without limitation, Performance Goals as described in Section 10.4, as shall be established by the Committee and set forth in the Award Agreement evidencing such Award. If the Committee exercises its discretion to establish performance criteria, the final value of Cash-Based Awards or Other Stock-Based Awards that will be paid to the Participant will depend on the extent to which the performance criteria are met.

11.4 **Payment or Settlement of Cash-Based Awards and Other Stock-Based Awards** Payment or settlement, if any, with respect to a Cash-Based Award or an Other Stock-Based Award shall be made in accordance with the terms of the Award, in cash, shares of Stock or other securities or any combination thereof as the Committee determines and set forth in the Award Agreement. To the extent applicable, payment or settlement with respect to each Cash-Based Award and Other Stock-Based Award shall be made in compliance with the requirements of Section 409A.

11.5 **Voting Rights; Dividend Equivalent Rights and Distributions**. Participants shall have no voting rights with respect to shares of Stock represented by Other Stock-Based Awards until the date of the issuance of such shares of Stock (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), if any, in settlement of such Award. However, the Committee, in its discretion, may provide in the Award Agreement evidencing any Other Stock-Based Award that the Participant shall be entitled to Dividend Equivalent Rights with respect to the payment of cash dividends on Stock during the period beginning on the date such Award is granted and ending, with respect to each share subject to the Award, on the earlier of the date the Award is settled or the date on which it is terminated. Such Dividend Equivalent Rights, if any, shall be paid in accordance with the provisions set forth in Section 9.4. Dividend Equivalent Rights shall not be granted with respect to Cash-Based Awards. In the event of a dividend or distribution paid in shares of Stock or other property or any other adjustment made upon a change in the capital structure of the Company as described in Section 4.3, appropriate adjustments shall be made in the Participant's Other Stock-Based Award so that it represents the right to receive upon settlement any and all new, substituted or additional securities or other property (other than regular, periodic cash dividends) to which the Participant would be entitled by reason of the shares of Stock issuable upon settlement of such Award, and all such new, substituted or additional securities or other property shall be immediately subject to the same Vesting Conditions and performance criteria, if any, as are applicable to the Award.

11.6 **Effect of Termination of Service**. Each Award Agreement evidencing a Cash-Based Award or Other Stock-Based Award shall set forth the extent to which the Participant shall have the right to retain such Award following termination of the Participant's Service. Such provisions shall be determined in the discretion of the Committee, need not be uniform among all Cash-Based Awards or Other Stock-Based Awards, and may reflect distinctions based on the reasons for termination, subject to the requirements of Section 409A, if applicable.

11.7 **Nontransferability of Cash-Based Awards and Other Stock-Based Awards.** Prior to the payment or settlement of a Cash-Based Award or Other Stock-Based Award, the Award shall not be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance, or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or by the laws of descent and distribution. The Committee may impose such additional restrictions on any shares of Stock issued in settlement of Cash-Based Awards and Other Stock-Based Awards as it may deem advisable, including, without limitation, minimum holding period requirements, restrictions under applicable federal securities laws, under the requirements of any stock exchange or market upon which such shares of Stock are then listed and/or traded, or under any state securities laws or foreign law applicable to such shares of Stock.

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12. **Standard Forms of Award Agreement**.

12.1 **Award Agreements.** Each Award shall comply with and be subject to the terms and conditions set forth in the appropriate form of Award Agreement approved by the Committee and as amended from time to time. No Award or purported Award shall be a valid and binding obligation of the Company unless evidenced by a Company-executed Award Agreement, which execution may be evidenced by electronic means.

12.2 **Authority to Vary Terms.** The Committee shall have the authority from time to time to vary the terms of any standard form of Award Agreement either in connection with the grant or amendment of an individual Award or in connection with the authorization of a new standard form or forms; provided, however, that the terms and conditions of any such new, revised or amended standard form or forms of Award Agreement are not inconsistent with the terms of the Plan.

13. **Change in Control**.

13.1 **Effect of Change in Control on Awards.** In the event of a Change in Control, outstanding Awards shall be subject to the definitive agreement entered into by the Company in connection with the Change in Control. Subject to the requirements and limitations of Section 409A, if applicable, the following provisions will apply to Awards in the event of a Change in Control unless otherwise provided in the Award Agreement or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Committee at the time of grant of an Award. In the event of a Change in Control, then, notwithstanding any other provision of the Plan, the Committee may take one or more of the following actions with respect to Awards, contingent upon the closing or completion of the Change in Control. The Committee need not take the same action or actions with respect to all Awards or portions thereof or with respect to all Participants and in each case may make such determination in its discretion and without the consent of any Participant (unless otherwise provided in the Award Agreement or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Committee at the time of grant of an Award).

(a) **Accelerated Vesting.** The Committee may take such action as it deems appropriate to provide for acceleration of the exercisability, vesting and/or settlement in connection with a Change in Control of each or any outstanding Award or portion thereof and shares acquired pursuant thereto upon such conditions, including termination of the Participant's Service prior to, upon, or following the Change in Control, and to such extent as the Committee determines.

(b) **Assumption, Continuation or Substitution.** The Committee may arrange for the surviving, continuing, successor, or purchasing corporation or other business entity or parent thereof, as the case may be (the "***Acquiror***"), to assume or continue the Company's rights and obligations under each or any Award or portion thereof outstanding immediately prior to the Change in Control or substitute for each or any such outstanding Award or portion thereof a substantially equivalent award with respect to the Acquiror's stock, as applicable, with appropriate adjustments in accordance with Section 4.3. For purposes of this Section, if so determined by the Committee in its discretion, an Award denominated in shares of Stock shall be deemed assumed if, following the Change in Control, the Award confers the right to receive, subject to the terms and conditions of the Plan and the applicable Award Agreement, for each share of Stock subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, other securities or property or a combination thereof) to which a holder of a share of Stock on the effective date of the Change in Control was

entitled (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Stock); provided, however, that if such consideration is not solely common stock of the Acquiror, the Committee may provide for the consideration to be received upon the exercise or settlement of the Award, for each share of Stock subject to the Award, to consist solely of common stock of the Acquiror equal in Fair Market Value to the per share consideration received by holders of Stock pursuant to the Change in Control. Any Award or portion thereof which is not assumed, continued, or substituted by the Acquiror in connection with the Change in Control nor exercised prior to the time of consummation of the Change in Control shall terminate and cease to be outstanding effective as of the time of consummation of the Change in Control.

(c) **Assignment or Lapse of Reacquisition or Repurchase Rights.** The Committee may arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Stock issued pursuant to the Award to the Acquiror or arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Award.

(d) **Cancellation.** In its discretion, the Committee may cancel or arrange for the cancellation of the Award, to the extent not vested or not exercised prior to the effective time of the Change in Control, in exchange for no consideration ($0) or such consideration, if any, as determined by the Committee.

(e) **Cash-Out of Outstanding Stock-Based Awards.** The Committee may determine that, upon the occurrence of a Change in Control, each or any Award denominated in shares of Stock or portion thereof outstanding immediately prior to the Change in Control and not previously exercised shall be canceled in exchange for a payment with respect to each vested share (and each unvested share, if so determined by the Committee) of Stock subject to such canceled Award in (i) cash, (ii) stock of the Company or of a corporation or other business entity a party to the Change in Control, or (iii) other property which, in any such case, shall be in an amount having a Fair Market Value equal to the Fair Market Value of the consideration to be paid per share of Stock in the Change in Control, reduced (but not below zero) by the exercise or purchase price per share, if any, under such Award. In the event such determination is made by the Committee, an Award having an exercise or purchase price per share equal to or greater than the Fair Market Value of the consideration to be paid per share of Stock in the Change in Control may be canceled without notice or payment of consideration to the holder thereof. Payment pursuant to this Section (reduced by applicable withholding taxes, if any) shall be made to Participants in respect of the vested portions of their canceled Awards as soon as practicable following the date of the Change in Control and in respect of the unvested portions of their canceled Awards in accordance with the vesting schedules applicable to such Awards or, if determined by the Committee and in compliance with Section 409A, as soon as practicable following the date of the Change in Control.

(f) **Adjustments and Earnouts**. In making any determination pursuant to this Section 13.1 in the event of a Change in Control, the Committee may, in its discretion, determine that an Award shall or shall not be subject to the same post-closing purchase price adjustments, escrow terms, offset rights, holdback terms, earnouts and similar conditions as the other holders of the Company's Stock, subject to any limitations or reductions as may be necessary to comply with Section 409A or Section 424 of the Code.

13.2 **Effect of Change in Control on Nonemployee Director Awards.** Subject to the requirements and limitations of Section 409A, if applicable, including as provided by Section 15.4(f), in the event of a Change in Control, each outstanding Nonemployee Director Award shall become immediately exercisable and vested in full effective immediately prior to and contingent upon the Change in Control and, except to the extent assumed, continued or substituted for pursuant to Section 13.1(b) or otherwise restricted by Section 409A, shall be settled effective immediately prior to the time of consummation of the Change in Control if not exercised prior to the Change in Control.

13.3 **Federal Excise Tax Under Section 4999 of the Code.**

(a) **Excess Parachute Payment.** If any acceleration of vesting pursuant to an Award and any other payment or benefit received or to be received by a Participant would subject the Participant to any excise tax pursuant to Section 4999 of the Code due to the characterization of such acceleration of vesting, payment or benefit as an "excess parachute payment" under Section 280G of the Code, then, provided such election would not subject the Participant to taxation under Section 409A, the Participant may elect to reduce the amount of any acceleration of vesting called for under the Award in order to avoid such characterization.

(b) **Determination by Tax Firm.** To aid the Participant in making any election called for under Section 13.3(a), no later than the date of the occurrence of any event that might reasonably be anticipated to result in an "excess parachute payment" to the Participant as described in Section 13.3(a), the Company shall request a determination in writing by the professional firm engaged by the Company for general tax purposes, or, if the tax firm so engaged by the Company is serving as accountant or auditor for the Acquiror, the Company will appoint a nationally recognized tax firm to make the determinations required by this Section (the "***Tax Firm***"). As soon as practicable thereafter, the Tax Firm shall determine and report to the Company and the Participant the amount of such acceleration of vesting, payments and benefits which would produce the greatest after-tax benefit to the Participant. For the purposes of such determination, the Tax Firm may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and the Participant shall furnish to the Tax Firm such information and documents as the Tax Firm may reasonably request in order to make its required determination. The Company shall bear all fees and expenses the Tax Firm charges in connection with its services contemplated by this Section.

14. **Compliance with Securities Law**.

The grant of Awards and the issuance of shares of Stock pursuant to any Award shall be subject to compliance with all applicable requirements of federal, state and foreign law with respect to such securities and the requirements of any stock exchange or market system upon which the Stock may then be listed. In addition, no Award may be exercised or shares issued pursuant to an Award unless (a) a registration statement under the Securities Act shall at the time of such exercise or issuance be in effect with respect to the shares issuable pursuant to the Award, or (b) in the opinion of legal counsel to the Company, the shares issuable pursuant to the Award may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any shares under the Plan shall relieve the Company of any liability in respect of the failure to issue or sell such shares as to which such requisite authority shall not have been obtained. As a condition to issuance of any Stock, the Company may require the Participant to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

15. **Compliance with Section 409A**.

15.1 **Awards Subject to Section 409A.** The Company intends that Awards granted pursuant to the Plan shall either be exempt from or comply with Section 409A, and the Plan shall be so construed. The provisions of this Section 15 shall apply to any Award or portion thereof that constitutes or provides for payment of Section 409A Deferred Compensation. Such Awards may include, without limitation:

(a) A Nonstatutory Stock Option or SAR that includes any feature for the deferral of compensation other than the deferral of recognition of income until the later of (i) the exercise or disposition of the Award or (ii) the time the stock acquired pursuant to the exercise of the Award first becomes substantially vested.

(b) Any Restricted Stock Unit Award, Performance Award, Cash-Based Award or Other Stock-Based Award that either (i) provides by its terms for settlement of all or any portion of the Award at a time or upon an event that will or may occur later than the end of the Short-Term Deferral Period (as defined below) or (ii) permits the Participant granted the Award to elect one or more dates or events upon which the Award will be settled after the end of the Short-Term Deferral Period.

Subject to the provisions of Section 409A, the term "***Short-Term Deferral Period***" means the 2 1/2 month period ending on the later of (i) the 15th day of the third month following the end of the Participant's taxable year in which the right to payment under the applicable portion of the Award is no longer subject to a substantial risk of forfeiture or (ii) the 15th day of the third month following the end of the Company's taxable year in which the right to payment under the applicable portion of the Award is no longer subject to a substantial risk of forfeiture. For this purpose, the term "substantial risk of forfeiture" shall have the meaning provided by Section 409A.

15.2 **Deferral and/or Distribution Elections.** Except as otherwise permitted or required by Section 409A and the Company, the following rules shall apply to any compensation deferral and/or payment elections (each, an "***Election***") that may be permitted or required by the Committee pursuant to an Award providing Section 409A Deferred Compensation:

(a) Elections must be in writing and specify the amount of the payment in settlement of an Award being deferred, as well as the time and form of payment as permitted by this Plan.

(b) Elections shall be made by the end of the Participant's taxable year prior to the year in which services commence for which an Award may be granted to the Participant.

(c) Elections shall continue in effect until a written revocation or change in Election is received by the Company, except that a written revocation or change in Election must be received by the Company prior to the last day for making the Election determined in accordance with paragraph (b) above or as permitted by Section 15.3.

15.3 **Subsequent Elections.** Except as otherwise permitted or required by Section 409A, any Award providing Section 409A Deferred Compensation which permits a subsequent Election to delay the payment or change the form of payment in settlement of such Award shall comply with the following requirements:

(a) No subsequent Election may take effect until at least twelve (12) months after the date on which the subsequent Election is made.

(b) Each subsequent Election related to a payment in settlement of an Award not described in Section 15.4(a)(ii), 15.4(a)(iii) or 15.4(a)(vi) must result in a delay of the payment for a period of not less than five (5) years from the date on which such payment would otherwise have been made.

(c) No subsequent Election related to a payment pursuant to Section 15.4(a)(vi) shall be made less than twelve (12) months before the date on which such payment would otherwise have been made.

(d) Subsequent Elections shall continue in effect until a written revocation or change in the subsequent Election is received by the Company, except that a written revocation or change in a subsequent Election must be received by the Company prior to the last day for making the subsequent Election determined in accordance the preceding paragraphs of this Section 15.3.

15.4 **Payment of Section 409A Deferred Compensation.**

(a) ***Permissible Payments.*** Except as otherwise permitted or required by Section 409A, an Award providing Section 409A Deferred Compensation must provide for payment in settlement of the Award only upon one or more of the following:

(i) The Participant's "separation from service" (as defined by Section 409A);

(ii) The Participant's becoming "disabled" (as defined by Section 409A);

(iii) The Participant's death;

(iv) A time or fixed schedule that is either (i) specified by the Committee upon the grant of an Award and set forth in the Award Agreement evidencing such Award or (ii) specified by the Participant in an Election complying with the requirements of Section 15.2 or 15.3, as applicable;

(v) A change in the ownership or effective control or the Company or in the ownership of a substantial portion of the assets of the Company determined in accordance with Section 409A; or

(vi) The occurrence of an "unforeseeable emergency" (as defined by Section 409A).

(b) ***Installment Payments***. It is the intent of this Plan that any right of a Participant to receive installment payments (within the meaning of Section 409A) shall, for all purposes of Section 409A, be treated as a right to a series of separate payments.

(c) ***Required Delay in Payment to Specified Employee Pursuant to Separation from Service.*** Notwithstanding any provision of the Plan or an Award Agreement to the contrary, except as otherwise permitted by Section 409A, no payment pursuant to Section 15.4(a)(i) in settlement of an Award providing for Section 409A Deferred Compensation may be made to a Participant who is a "specified employee" (as defined by Section 409A) as of the date of the Participant's separation from service before the date (the "***Delayed Payment Date***") that is six (6) months after the date of such Participant's separation from service, or, if earlier, the date of the Participant's death. All such amounts that would, but for this paragraph, become payable prior to the Delayed Payment Date shall be accumulated and paid on the Delayed Payment Date.

(d) ***Payment Upon Disability.*** All distributions of Section 409A Deferred Compensation payable pursuant to Section 15.4(a)(ii) by reason of a Participant becoming disabled shall be paid in a lump sum or in periodic installments as established by the Participant's Election. If the Participant has made no Election with respect to distributions of Section 409A Deferred Compensation upon becoming disabled, all such distributions shall be paid in a lump sum or commence upon the determination that the Participant has become disabled.

(e) ***Payment Upon Death.*** If a Participant dies before complete distribution of amounts payable upon settlement of an Award subject to Section 409A, such undistributed amounts shall be distributed to his or her beneficiary under the distribution method for death established by the Participant's Election upon receipt by

the Committee of satisfactory notice and confirmation of the Participant's death. If the Participant has made no Election with respect to distributions of Section 409A Deferred Compensation upon death, all such distributions shall be paid in a lump sum upon receipt by the Committee of satisfactory notice and confirmation of the Participant's death.

(f) ***Payment Upon Change in Control.*** Notwithstanding any provision of the Plan or an Award Agreement to the contrary, to the extent that any amount constituting Section 409A Deferred Compensation would become payable under this Plan by reason of a Change in Control, such amount shall become payable only if the event constituting a Change in Control would also constitute a change in ownership or effective control of the Company or a change in the ownership of a substantial portion of the assets of the Company within the meaning of Section 409A. Any Award which constitutes Section 409A Deferred Compensation and which would vest and otherwise become payable upon a Change in Control as a result of the failure of the Acquiror to assume, continue or substitute for such Award in accordance with Section 13.1(b) shall vest to the extent provided by such Award but shall be converted automatically at the effective time of such Change in Control into a right to receive, in cash on the date or dates such award would have been settled in accordance with its then existing settlement schedule (or as required by Section 15.4(c)), an amount or amounts equal in the aggregate to the intrinsic value of the Award at the time of the Change in Control.

(g) ***Payment Upon Unforeseeable Emergency.*** The Committee shall have the authority to provide in the Award Agreement evidencing any Award providing for Section 409A Deferred Compensation for payment pursuant to Section 15.4(a)(vi) in settlement of all or a portion of such Award in the event that a Participant establishes, to the satisfaction of the Committee, the occurrence of an unforeseeable emergency. In such event, the amount(s) distributed with respect to such unforeseeable emergency cannot exceed the amounts reasonably necessary to satisfy the emergency need plus amounts necessary to pay taxes reasonably anticipated as a result of such distribution(s), after taking into account the extent to which such emergency need is or may be relieved through reimbursement or compensation by insurance or otherwise, by liquidation of the Participant's assets (to the extent the liquidation of such assets would not itself cause severe financial hardship) or by cessation of deferrals under the Award. All distributions with respect to an unforeseeable emergency shall be made in a lump sum upon the Committee's determination that an unforeseeable emergency has occurred. The Committee's decision with respect to whether an unforeseeable emergency has occurred and the manner in which, if at all, the payment in settlement of an Award shall be altered or modified, shall be final, conclusive, and not subject to approval or appeal.

(h) ***Prohibition of Acceleration of Payments.*** Notwithstanding any provision of the Plan or an Award Agreement to the contrary, this Plan does not permit the acceleration of the time or schedule of any payment under an Award providing Section 409A Deferred Compensation, except as permitted by Section 409A. The Company reserves the right in its discretion to accelerate the time or schedule of any payment under an Award providing Section 409A Deferred Compensation to the maximum extent permitted by Section 409A.

(i) ***No Representation Regarding Section 409A Compliance.*** Notwithstanding any other provision of the Plan, the Company makes no representation that Awards shall be exempt from or comply with Section 409A. No Participating Company shall be liable for any tax, penalty or interest imposed on a Participant by Section 409A.

16. **Tax Withholding.**

16.1 **Tax Withholding in General.** The Company shall have the right to deduct from any and all payments made under the Plan, or to require the Participant, through payroll withholding, cash payment or otherwise, to make adequate provision for, the federal, state, local and foreign taxes (including social insurance), if any, required by law to be withheld by any Participating Company with respect to an Award or the shares acquired pursuant thereto. The Company shall have no obligation to deliver shares of Stock, to release shares of Stock from an escrow established pursuant to an Award Agreement, or to make any payment in cash under the Plan until the Participating Company Group's tax withholding obligations have been satisfied by the Participant.

16.2 **Withholding in or Directed Sale of Shares.** The Company shall have the right, but not the obligation, to deduct from the shares of Stock issuable to a Participant upon the exercise or settlement of an Award, or to accept from the Participant the tender of, a number of whole shares of Stock having a Fair Market Value, as determined by the Company, equal to all or any part of the tax withholding obligations of any Participating Company. The Fair Market Value of any shares of Stock withheld or tendered to satisfy any such tax withholding obligations shall be determined by the Company in accordance with the Company's withholding procedures and considering any accounting consequences or cost. The Company may require a Participant to direct a broker, upon the vesting, exercise or settlement of an Award, to sell a portion of the shares subject to the Award determined by the Company in its discretion to be sufficient to cover the tax withholding obligations of any Participating Company and to remit an amount equal to such tax withholding obligations to such Participating Company in cash.

17. **Amendment, Suspension or Termination of Plan.**

The Committee may amend, suspend or terminate the Plan at any time. However, without the approval of the Company's stockholders, there shall be (a) no increase in the maximum aggregate number of shares of Stock that may be issued under the Plan (except by operation of the provisions of Sections 4.2 and 4.3, (b) no change in the class of persons eligible to receive Incentive Stock Options, and (c) no other amendment of the Plan that would require approval of the Company's stockholders under any applicable law, regulation or rule, including the rules of any stock exchange or quotation system upon which the Stock may then be listed or quoted. No amendment, suspension or termination of the Plan shall affect any then outstanding Award unless expressly provided by the Committee. Except as provided by the next sentence, no amendment, suspension or termination of the Plan may have a materially adverse effect on any then outstanding Award without the consent of the Participant. Notwithstanding any other provision of the Plan or any Award Agreement to the contrary, the Committee may, in its sole and absolute discretion and without the consent of any Participant, amend the Plan or any Award Agreement, to take effect retroactively or otherwise, as it deems necessary or advisable for the purpose of conforming the Plan or such Award Agreement to any present or future law, regulation or rule applicable to the Plan, including, but not limited to, Section 409A.

18. **Miscellaneous Provisions.**

18.1 **Repurchase Rights.** Shares issued under the Plan may be subject to one or more repurchase options, or other conditions and restrictions as determined by the Committee in its discretion at the time the Award is granted. The Company shall have the right to assign at any time any repurchase right it may have, whether or not such right is then exercisable, to one or more persons as may be selected by the Company. Upon request by the Company, each Participant shall execute any agreement evidencing such transfer restrictions prior to the receipt of shares of Stock hereunder and shall promptly present to the Company any and all certificates representing shares of Stock acquired hereunder for the placement on such certificates of appropriate legends evidencing any such transfer restrictions.

18.2 **Forfeiture Events.**

(a) The Committee may specify in an Award Agreement that the Participant's rights, payments, and benefits with respect to an Award shall be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Such events may include, but shall not be limited to, termination of Service for Cause or any act by a Participant, whether before or after termination of Service,

that would constitute Cause for termination of Service, or any accounting restatement due to material noncompliance of the Company with any financial reporting requirements of securities laws as a result of which, and to the extent that, such reduction, cancellation, forfeiture, or recoupment is required by applicable securities laws. In addition, to the extent that claw-back or similar provisions applicable to Awards are required by applicable law, listing standards and/or policies adopted by the Company, Awards granted under the Plan shall be subject to such provisions.

(b) If the Company is required to prepare an accounting restatement due to the material noncompliance of the Company, as a result of misconduct, with any financial reporting requirement under the securities laws, any Participant who knowingly or through gross negligence engaged in the misconduct, or who knowingly or through gross negligence failed to prevent the misconduct, and any Participant who is one of the individuals subject to automatic forfeiture under Section 304 of the Sarbanes-Oxley Act of 2002, shall reimburse the Company for (i) the amount of any payment in settlement of an Award received by such Participant during the twelve- (12-) month period following the first public issuance or filing with the United States Securities and Exchange Commission (whichever first occurred) of the financial document embodying such financial reporting requirement, and (ii) any profits realized by such Participant from the sale of securities of the Company during such twelve- (12-) month period.

(c) No recovery of compensation pursuant to the foregoing provisions will constitute an event giving rise to a Participant's right to voluntarily terminate employment upon a "resignation for good reason" or for a "constructive termination" or any similar term under any plan or agreement with the Company.

18.3 **Provision of Information.** Each Participant shall be given access to information concerning the Company equivalent to that information generally made available to the Company's common stockholders.

18.4 **Electronic Delivery and Participation.** Any reference herein or in an Award Agreement to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access). By accepting any Award, the Participant consents to receive documents by electronic delivery and to participate in the Plan through any on-line electronic system established and maintained by the Plan Administrator or another third party selected by the Plan Administrator. The form of delivery of any Stock (*e.g.*, a stock certificate or electronic entry evidencing such shares) shall be determined by the Company.

18.5 **Change in Time Commitment.** In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board may determine, to the extent permitted by Applicable Law, to (i) make a corresponding reduction in the number of shares, amount of cash, or other property subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced or extended.

18.6 **Rights as Employee, Consultant or Director.** No person, even though eligible pursuant to Section 5, shall have a right to be selected as a Participant, or, having been so selected, to be selected again as a Participant. Nothing in the Plan or any Award granted under the Plan shall confer on any Participant a right to remain an Employee, Consultant or Director or interfere with or limit in any way any right of a Participating Company to terminate the Participant's Service at any time. To the extent that an Employee of a Participating Company other than the Company receives an Award under the Plan, that Award shall in no event be understood or interpreted to mean that the Company is the Employee's employer or that the Employee has an employment relationship with the Company.

18.7 **Rights as a Stockholder.** A Participant shall have no rights as a stockholder with respect to any shares covered by an Award until the date of the issuance of such shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for dividends, distributions or other rights for which the record date is prior to the date such shares are issued, except as provided in Section 4 or another provision of the Plan.

18.8 **Delivery of Title to Shares.** Subject to any governing rules or regulations, the Company shall issue or cause to be issued the shares of Stock acquired pursuant to an Award and shall deliver such shares to or for the benefit of the Participant by means of one or more of the following: (a) by delivering to the Participant evidence of book entry shares of Stock credited to the account of the Participant, (b) by depositing such shares of Stock for the benefit of the Participant with any broker with which the Participant has an account relationship, or (c) by delivering such shares of Stock to the Participant in certificate form.

18.9 **Fractional Shares.** The Company shall not be required to issue fractional shares upon the exercise or settlement of any Award.

18.10 **Provisions for Non-U.S. Participants**. The Committee may modify Awards granted to Participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the Plan to address differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

18.11 **Lock-Up Period**. The Company may, at the request of any underwriter representative or otherwise, in connection with registering the offering of any Company securities under the Securities Act, prohibit Participants from, directly or indirectly, selling or otherwise transferring any share of Stock or other Company securities during a period of up to 180 days following the effective date of a Company registration statement filed under the Securities Act, or such longer period as determined by the underwriter.

18.12 **Data Privacy**. As a condition for receiving any Award, each Participant explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this section by and among the Company and its Subsidiaries and affiliates exclusively for implementing, administering and managing the Participant's participation in the Plan. The Company and its Subsidiaries and affiliates may hold certain personal information about a Participant, including the Participant's name, address and telephone number; birthdate; social security, insurance number or other identification number; salary; nationality; job title(s); any shares of Stock held in the Company or its Subsidiaries and affiliates; and Award details, to implement, manage and administer the Plan and Awards (the "***Data***"). The Company and its Subsidiaries and affiliates may transfer the Data amongst themselves as necessary to implement, administer and manage a Participant's participation in the Plan, and the Company and its Subsidiaries and affiliates may transfer the Data to third parties assisting the Company with Plan implementation, administration and management. These recipients may be located in the Participant's country, or elsewhere, and the Participant's country may have different data privacy laws and protections than the recipients' country. By accepting an Award, each Participant authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, to implement, administer and manage the Participant's participation in the Plan, including any required Data transfer to a broker or other third party with whom the Company or the Participant may elect to deposit any shares of Stock. The Data related to a Participant will be held only as long as necessary to implement, administer, and manage the Participant's participation in the Plan. A Participant may, at any time, view the Data that the Company holds regarding such Participant, request additional information about the storage and processing of the Data regarding such Participant, recommend any necessary corrections to the Data regarding the Participant or refuse or withdraw the consents in this Section 18.12 in writing, without cost, by contacting the local human resources representative. If the Participant refuses or withdraws the consents in this Section 18.12, the Company may cancel Participant's ability to participate in the Plan and, in the Administrator's discretion, the Participant may forfeit any outstanding Awards. For more information on the consequences of refusing or withdrawing consent, Participants may contact their local human resources representative.

18.13 **Retirement and Welfare Plans**. Neither Awards made under this Plan nor shares of Stock or cash paid pursuant to such Awards may be included as

"compensation" for purposes of computing the benefits payable to any Participant under any Participating Company's retirement plans (both qualified and non-qualified) or welfare benefit plans unless such other plan expressly provides that such compensation shall be taken into account in computing a Participant's benefit. In addition, unless a written employment agreement or other service agreement specifically references Awards, a general reference to "benefits" or a similar term in such agreement shall not be deemed to refer to Awards granted hereunder.

18.14 **Beneficiary Designation.** Subject to local laws and procedures, each Participant may file with the Company a written designation of a beneficiary who is to receive any benefit under the Plan to which the Participant is entitled in the event of such Participant's death before he or she receives any or all of such benefit. Each designation will revoke all prior designations by the same Participant, shall be in a form prescribed by the Company, and will be effective only when filed by the Participant in writing with the Company during the Participant's lifetime. If a married Participant designates a beneficiary other than the Participant's spouse, the effectiveness of such designation may be subject to the consent of the Participant's spouse. If a Participant dies without an effective designation of a beneficiary who is living at the time of the Participant's death, the Company will pay any remaining unpaid benefits to the Participant's legal representative.

18.15 **Severability**. If any one or more of the provisions (or any part thereof) of this Plan shall be held invalid, illegal or unenforceable in any respect, such provision shall be modified so as to make it valid, legal and enforceable, and the validity, legality and enforceability of the remaining provisions (or any part thereof) of the Plan shall not in any way be affected or impaired thereby.

18.16 **No Constraint on Corporate Action.** Nothing in this Plan shall be construed to: (a) limit, impair, or otherwise affect the Company's or another Participating Company's right or power to make adjustments, reclassifications, reorganizations, or changes of its capital or business structure, or to merge or consolidate, or dissolve, liquidate, sell, or transfer all or any part of its business or assets; or (b) limit the right or power of the Company or another Participating Company to take any action which such entity deems to be necessary or appropriate.

18.17 **Unfunded Obligation.** Participants shall have the status of general unsecured creditors of the Company. Any amounts payable to Participants pursuant to the Plan shall be considered unfunded and unsecured obligations for all purposes, including, without limitation, Title I of the Employee Retirement Income Security Act of 1974. No Participating Company shall be required to segregate any monies from its general funds, or to create any trusts, or establish any special accounts with respect to such obligations. The Company shall retain at all times beneficial ownership of any investments, including trust investments, which the Company may make to fulfill its payment obligations hereunder. Any investments or the creation or maintenance of any trust or any Participant account shall not create or constitute a trust or fiduciary relationship between the Committee or any Participating Company and a Participant, or otherwise create any vested or beneficial interest in any Participant or the Participant's creditors in any assets of any Participating Company. The Participants shall have no claim against any Participating Company for any changes in the value of any assets which may be invested or reinvested by the Company with respect to the Plan.

18.18 **Choice of Law.** Except to the extent governed by applicable federal law, the validity, interpretation, construction and performance of the Plan and each Award Agreement shall be governed by the laws of the State of Delaware, without regard to its conflict of law rules.

ASP ISOTOPES INC.
NOTICE OF GRANT OF RESTRICTED STOCK

You have been granted an award (the *"**Award**"*) of certain shares of Stock (the *"**Shares**"*) of ASP Isotopes Inc. pursuant to the ASP Isotopes Inc. 2022 Equity Incentive Plan (the *"**Plan**"*) and your Restricted Stock Agreement (the "***Agreement***"), as follows:

Participant: ______________________
Date of Grant: ______________________

Total Number of Shares: ______________________ , subject to adjustment as provided by the Agreement.

Fair Market Per Share on Date of Grant: $______________________

Vesting Commencement Date: [Insert Date]

Vested Shares: Except as provided below or in the Agreement, the number of Vested Shares (disregarding any resulting fractional share) as of any date is determined by multiplying the Total Number of Shares by the *"**Vested Ratio**"* determined as of such date as follows:

	Vested Ratio
______________________________	___
______________________________	___

You and the Company agree that the Award is governed by this Notice of Grant and by the provisions of the Plan and the Agreement, all of which are attached to and made a part of this document. You acknowledge receipt of copies of the Plan and the Agreement, represent that you have read and are familiar with their provisions and accept the Award subject to all of their terms and conditions.

ASP ISOTOPES INC.

By: ______________________________

Its: ______________________________

Address:

PARTICIPANT

____
Signature

____
Date

Address

____

ATTACHMENTS: 2022 Equity Incentive Plan, as amended, Restricted Stock Agreement, Assignment Separate from Certificate, form of Section 83(b) Election and Plan Prospectus

ASP ISOTOPES INC.
RESTRICTED STOCK AGREEMENT

ASP Isotopes Inc. has granted to the Participant named in the *Notice of Grant of Restricted Stock* (the ***"Grant Notice"***) to which this Restricted Stock Agreement (the ***"Agreement"***) is attached an Award consisting of shares of Stock subject to the terms and conditions set forth in the Grant Notice and this Agreement. The Award has been granted pursuant to, and is in all respects subject to, the terms and conditions of, the ASP Isotopes Inc. 2022 Equity Incentive Plan (the ***"Plan"***).

By signing the Grant Notice, the Participant: (a) acknowledges receipt of, and represents that the Participant has read and is familiar with, the Grant Notice, this Agreement, the Plan and a prospectus for the Plan prepared in connection with the registration with the Securities and Exchange Commission of shares issuable pursuant to the Award (the ***"Plan Prospectus"***), (b) accepts the Award subject to all of the terms and conditions of the Grant Notice, this Agreement and the Plan and (c) agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Grant Notice, this Agreement or the Plan.

Unless otherwise defined by this Agreement, capitalized terms have the meanings assigned by the Grant Notice or the Plan.

1. **Tax Matters.**

1.1 **Election under Section 83(b) of the Code.** The Participant understands that Section 83 of the Code taxes as ordinary income the fair market value of the shares of Stock as of the date on which the shares of Stock are "substantially vested," within the meaning of Section 83. In this context, "substantially vested" means that the right of the Company to reacquire the shares of Stock pursuant to the Company Reacquisition Right has lapsed. The Participant understands that he or she may elect to have his or her taxable income determined at the time he or she acquires the shares of Stock rather than when the Company Reacquisition Right lapses by filing an election under Section 83(b) of the Code with the Internal Revenue Service no later than thirty (30) days after the date of acquisition of the shares of Stock. The Participant understands that failure to make a timely filing under Section 83(b) will result in his or her recognition of ordinary income, as the Company Reacquisition Right lapses, on the Fair Market Value of the shares of Stock at the time such restrictions lapse. The Participant further understands, however, that if shares of Stock with respect to which an election under Section 83(b) has been made are forfeited to the Company pursuant to its Company Reacquisition Right, he or she will be unable to recognize any loss on the forfeiture of the shares of Stock even though the Participant incurred a tax liability by making an election under Section 83(b).

1.2 **Notice to Company.** The Participant will notify the Company in writing if the Participant files an election pursuant to Section 83(b) of the Code. The Company intends, in the event it does not receive from the Participant evidence of such filing, to claim a tax deduction for any amount which would otherwise be taxable to the Participant in the absence of such an election.

1.3 **Consultation with Tax Advisors.** The Participant hereby acknowledges that the Participant been advised by the Company to seek independent tax advice from Participant's own advisors regarding the availability and advisability of making an election under Section 83(b) of the Internal Revenue Code of 1986, as amended, and that any such election, if made, must be made within 30 days of the Grant Date. Participant expressly acknowledges that Participant is solely responsible for filing any such Section 83(b) election with the appropriate governmental authorities, irrespective of the fact that such election is also delivered to the Company. Participant may not rely on the Company or any of its officers, directors or employees for tax or legal advice regarding this Award. Participant acknowledges that Participant has sought tax and legal advice from Participant's own advisors regarding this Award or has voluntarily and knowingly foregone such consultation.

ANY ELECTION UNDER SECTION 83(b) THE PARTICIPANT WISHES TO MAKE MUST BE FILED NO LATER THAN 30 DAYS AFTER THE DATE ON WHICH THE PARTICIPANT ACQUIRES THE SHARES OF STOCK. THIS TIME PERIOD CANNOT BE EXTENDED. THE PARTICIPANT ACKNOWLEDGES THAT TIMELY FILING OF A SECTION 83(b) ELECTION IS THE PARTICIPANT'S SOLE RESPONSIBILITY, EVEN IF THE PARTICIPANT REQUESTS THE COMPANY OR ITS REPRESENTATIVE TO FILE SUCH ELECTION ON HIS OR HER BEHALF.

1.4 **Tax Withholding**.

(a) ***In General.*** At the time the Grant Notice is executed, or at any time thereafter as requested by a Participating Company, theParticipant authorizes withholding from payroll and any other amounts payable to the Participant, and otherwise agrees to make adequate provision for, any sums required to satisfy the federal, state, local and foreign tax (including any social insurance) withholding obligations of the Participating Company Group, if any, which arise in connection with the Award, including, without limitation, obligations arising upon (i) the transfer of shares of Stock to the Participant, (ii) the lapsing of any restriction with respect to any shares of Stock, (iii) the filing of an election to recognize tax liability, or (iv) the transfer by the Participant of any shares of Stock. The Company has no obligation to deliver the shares of Stock or to release any shares of Stock from the Escrow established pursuant to Section 7 until the tax withholding obligations of the Participating Company have been satisfied by the Participant.

(b) ***Withholding in Shares.*** The Company has the right, but not the obligation, to require the Participant to satisfy all or any portion of a Participating Company's tax withholding obligations by withholding a number of whole Vested Shares otherwise deliverable to the Participant or by the Participant's tender to the Company of a number of whole Vested Shares or vested shares acquired otherwise than pursuant to the Award having, in any such case, a Fair Market Value, as determined by the Company as of the date on which the tax withholding obligations arise, not in excess of the amount of such tax withholding obligations determined by the applicable minimum statutory withholding rates.

2. **Administration.**

All questions of interpretation concerning the Grant Notice, this Agreement, the Plan or any other form of agreement or other document employed by the Company in the administration of the Plan or the Award are determined by the Committee as set forth in Section 3 of the Plan. All such determinations by the Committee shall be final, binding and conclusive upon all persons having an interest in the Award, unless fraudulent or made in bad faith. Any and all actions, decisions and determinations taken or made by the Committee in the exercise of its discretion pursuant to the Plan or the Award or other agreement thereunder (other than determining questions of interpretation pursuant to the preceding sentence) shall be final, binding and conclusive upon all persons having an interest in the Award. Any Officer shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the Officer has apparent authority with respect to such matter, right, obligation, or election.

3. **The Award.**

3.1 **Grant and Issuance of Shares.** On the Date of Grant, the Participant will acquire and the Company will issue, subject to the provisions of this

Agreement, a number of shares of Stock equal to the Total Number of Shares. As a condition to the issuance of the shares of Stock, the Participant will execute and deliver the Grant Notice to the Company, accompanied by an Assignment Separate from Certificate duly endorsed (with date and number of shares blank) in the form provided by the Company.

3.2 **No Monetary Payment Required.** The Participant is not required to make any monetary payment (other than to satisfy applicable tax withholding, if any, with respect to the issuance or vesting of the shares of Stock) as a condition to receiving the shares of Stock, the consideration will be past services actually rendered or future services to be rendered to a Participating Company or for its benefit. Notwithstanding the foregoing, if required by applicable law, the Participant will furnish consideration in the form of cash or past services rendered to a Participating Company or for its benefit having a value not less than the par value of the shares of Stock issued pursuant to the Award.

3.3 **Beneficial Ownership of Shares of Stock; Certificate Registration.** The Participant authorizes the Company, in its sole discretion, to deposit the shares of Stock with the Company's transfer agent, including any successor transfer agent, to be held in book entry form. Furthermore, the Participant authorizes the Company, in its sole discretion, to deposit, following the term of the Escrow pursuant to Section 7, for the benefit of the Participant with any broker with which the Participant has an account relationship of which the Company has notice any or all shares of Stock which are no longer subject to such Escrow. Except as provided by the foregoing, a certificate for the shares of Stock will be registered in the name of the Participant, or, if applicable, in the names of the heirs of the Participant.

3.4 **Issuance of Shares in Compliance with Law.** The issuance of shares of Stock will be subject to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. No shares of Stock will be issued if their issuance would constitute a violation of any applicable federal, state or foreign securities laws or other law or regulations or the requirements of any stock exchange or market system upon which the Stock may then be listed. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance of any shares of Stock will relieve the Company of any liability in respect of the failure to issue such shares of Stock as to which such requisite authority will not have been obtained. As a condition to the issuance of the shares of Stock, the Company may require the Participant to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty as may be requested by the Company.

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4. **Vesting of Shares.**

Shares of Stock acquired pursuant to this Agreement will become Vested Shares as provided in the Grant Notice. For purposes of determining the number of Vested Shares following an Ownership Change Event, credited Service will include all Service with any corporation which is a Participating Company at the time the Service is rendered, whether or not such corporation is a Participating Company both before and after the Ownership Change Event.

5. **Company Reacquisition Right.**

5.1 **Grant of Company Reacquisition Right.** In the event that (a) the Participant's Service terminates for any reason or no reason, with or without Cause, or, (b) the Participant, the Participant's legal representative, or other holder of the shares of Stock, attempts to sell, exchange, transfer, pledge, or otherwise dispose of (other than pursuant to an Ownership Change Event), including, without limitation, any transfer to a nominee or agent of the Participant, any shares of Stock which are not Vested Shares (*"Unvested Shares"*), the Participant will forfeit and the Company will automatically reacquire the Unvested Shares, and the Participant will not be entitled to any payment therefor (the "*Company Reacquisition Right*").

5.2 **Ownership Change Event, Dividends, Distributions and Adjustments.** Upon the occurrence of an Ownership Change Event, a dividend or distribution to the stockholders of the Company paid in shares of Stock or other property, or any other adjustment upon a change in the capital structure of the Company as described in Section 9, any and all new, substituted or additional securities or other property (other than regular, periodic dividends paid on Stock pursuant to the Company's dividend policy) to which the Participant is entitled by reason of the Participant's ownership of Unvested Shares will be immediately subject to the Company Reacquisition Right and included in the terms "Shares," "Stock" and "Unvested Shares" for all purposes of the Company Reacquisition Right with the same force and effect as the Unvested Shares immediately prior to the Ownership Change Event, dividend, distribution or adjustment, as the case may be. For purposes of determining the number of Vested Shares following an Ownership Change Event, dividend, distribution or adjustment, credited Service includes all Service with any corporation which is a Participating Company at the time the Service is rendered, whether or not such corporation is a Participating Company both before and after any such event.

5.3 **Regular Periodic Dividends.** Any regular dividends that become payable with respect to an Unvested Share will be accrued and held by the Company until the Unvested Share becomes vested and will be paid to Participant within fifteen days after the date on which the related Unvested Share becomes vested.

6. **Stock Distributions Subject to Agreement.**

If, from time to time, there is any stock dividend, stock split or other change, as described in Section 9, in the character or amount of any of the outstanding stock of the corporation the stock of which is subject to the provisions of this Agreement, then in such event any and all new, substituted or additional securities to which the Participant is entitled by reason of the Participant's ownership of the shares of Stock acquired pursuant to this Agreement will be immediately subject to the Company Reacquisition Right set forth in the Plan with the same force and effect as the shares subject to the Company Reacquisition Right immediately before such event.

7. **Escrow.**

7.1 **Appointment of Agent.** To ensure that shares of Stock subject to the Company Reacquisition Right will be available for reacquisition, the Participant and the Company hereby appoint the Secretary of the Company, or any other person designated by the Company, as their agent and as attorney-in-fact for the Participant (the *"Agent"*) to hold any and all Unvested Shares and to sell, assign and transfer to the Company any Unvested Shares reacquired by the Company pursuant to the Company Reacquisition Right. The Participant understands that appointment of the Agent is a material inducement to make this Agreement and that such appointment is coupled with an interest and is irrevocable. The Agent will not be personally liable for any act the Agent may do or omit to do hereunder as escrow agent, agent for the Company, or attorney in fact for the Participant while acting in good faith and in the exercise of the Agent's own good judgment, and any act done or omitted by the Agent pursuant to the advice of the Agent's own attorneys will be conclusive evidence of good faith. The Agent may rely upon any letter, notice or other document executed by any signature purporting to be genuine and may resign at any time.

7.2 **Establishment of Escrow.** The Participant authorizes the Company to deposit the Unvested Shares with the Company's transfer agent to be held in book entry form, as provided by Section 3.3, and the Participant agrees to deliver to and deposit with the Agent each certificate, if any, evidencing the shares of Stock and an Assignment Separate from Certificate with respect to such book entry shares and each such certificate duly endorsed (with date and number of shares of Stock blank) in the form attached to this Agreement, to be held by the Agent under the terms and conditions of this Section (the *"Escrow"*). Upon the occurrence of an Ownership Change Event, a dividend or distribution to the stockholders of the Company paid in shares of Stock or other property (other than regular, periodic dividends paid on Stock pursuant to the

Company's dividend policy), or any other adjustment upon a change in the capital structure of the Company, as described in Section 9, any and all new, substituted or additional securities or other property to which the Participant is entitled by reason of his or her ownership of the shares of Stock that remain, following such Ownership Change Event, dividend, distribution or change described in Section 9, subject to the Company Reacquisition Right will be immediately subject to the Escrow to the same extent as the shares of Stock immediately before such event. The Company will bear the expenses of the Escrow.

7.3 **Delivery of Shares of Stock to Participant.** The Escrow will continue with respect to any shares of Stock for so long as the shares of Stock remain subject to the Company Reacquisition Right. Upon termination of the Company Reacquisition Right with respect to shares of Stock, the Company will notify the Agent and direct the Agent to deliver such number of shares of Stock to the Participant. As soon as practicable after receipt of such notice, the Agent will cause the shares of Stock specified by such notice to be delivered to the Participant, and the Escrow will terminate with respect to such shares of Stock.

8. **Effect of Change in Control.**

In the event of a Change in Control, the treatment of the Award and the shares of Stock will be governed by Section 13 of the Plan and any applicable provisions of the Grant Notice.

9. **Adjustments for Changes in Capital Structure.**

The Shares are subject to the adjustment as provided by Section 4.3 of the Plan.

10. **Rights as a Stockholder.**

10.1 **In General.** Subject to the provisions of this Agreement, the Participant will exercise all rights and privileges of a stockholder of the Company with respect to shares of Stock deposited in the Escrow pursuant to Section 7 hereof.

11. **Rights as a Director, Employee or Consultant.**

If the Participant is an Employee, the Participant understands and acknowledges that, except as otherwise provided in a separate, written employment agreement between a Participating Company and the Participant, the Participant's employment is "at will" and is for no specified term. Nothing in this Agreement confers upon the Participant any right to continue in the Service of a Participating Company or interferes in any way with any right of the Participating Company Group to terminate the Participant's Service, as the case may be, at any time.

12. **Legends.**

The Company may at any time place legends referencing the Company Reacquisition Right and any applicable federal, state or foreign securities law restrictions on all certificates representing shares of Stock. The Participant must, at the request of the Company, promptly present to the Company any and all certificates representing shares of Stock in the possession of the Participant in order to carry out the provisions of this Section. Unless otherwise specified by the Company, legends placed on such certificates may include, but are not limited to, the following:

12.1 "THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND REAQUISITION RIGHTS IN FAVOR OF THE CORPORATION OR ITS ASSIGNEE SET FORTH IN AN AGREEMENT BETWEEN THE CORPORATION AND THE REGISTERED HOLDER, OR SUCH HOLDER'S PREDECESSOR IN INTEREST, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THIS CORPORATION."

13. **Miscellaneous Provisions.**

13.1 **Captions.** Captions and titles contained herein are for convenience only and do not affect the meaning or interpretation of any provision of this Agreement. Except when otherwise indicated by the context, the singular includes the plural and the plural includes the singular. Use of the term "or" is not intended to be exclusive, unless the context clearly requires otherwise.

13.2 **Further Instruments.** The parties hereto agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

13.3 **Binding Effect.** This Agreement will inure to the benefit of the successors and assigns of the Company and, subject to the restrictions on transfer set forth herein, be binding upon the Participant and the Participant's heirs, executors, administrators, successors and assigns.

13.4 **Delivery of Documents and Notices.** Any document relating to participation in the Plan, or any notice required or permitted hereunder must be given in writing and will be deemed effectively given (except to the extent that this Agreement provides for effectiveness only upon actual receipt of such notice) upon personal delivery, electronic delivery at the e-mail address, if any, provided for the Participant by a Participating Company, or upon deposit in the U.S. Post Office or foreign postal service, by registered or certified mail, or with a nationally recognized overnight courier service, with postage and fees prepaid, addressed to the other party at the address of such party set forth in the Grant Notice or at such other address as such party may designate in writing from time to time to the other party.

(a) ***Description of Electronic Delivery.*** The Plan documents, which may include but do not necessarily include: the Plan, the Grant Notice, this Agreement, and any reports of the Company provided generally to the Company's stockholders, may be delivered to the Participant electronically. In addition, if permitted by the Company, the Participant may deliver electronically the Grant Notice to the Company or to such third party involved in administering the Plan as the Company may designate from time to time. Such means of electronic delivery may include but do not necessarily include the delivery of a link to a Company intranet or the Internet site of a third party involved in administering the Plan, the delivery of the document via e-mail or such other means of electronic delivery specified by the Company.

(b) ***Consent to Electronic Delivery.*** The Participant acknowledges that the Participant has read Section 13.4(a) of this Agreement and consents to the electronic delivery of the Plan documents and, if permitted by the Company, the delivery of the Grant Notice and notices in connection with the Escrow, as described in Section 13.4(a). The Participant acknowledges that he or she may receive from the Company a paper copy of any documents delivered electronically at no cost to the Participant by contacting the Company by telephone or in writing. The Participant further acknowledges that the Participant will be provided with a paper copy of any documents if the attempted electronic delivery of such documents fails. Similarly, the Participant understands that the Participant must provide the Company or any designated third-party administrator with a paper copy of any documents if the attempted electronic delivery of such documents fails. The Participant may revoke his or her consent to the

electronic delivery of documents described in Section 13.4(a) or may change the electronic mail address to which such documents are to be delivered (if Participant has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Participant understands that he or she is not required to consent to electronic delivery of documents described in Section 13.4(a).

13.5 **Entire Agreement.** The Grant Notice, this Agreement and the Plan constitute the entire understanding and agreement of the Participant and the Participating Company Group with respect to the subject matter contained herein or therein and supersede any prior or contemporaneous agreements, understandings, restrictions, representations, or warranties among the Participant and the Participating Company Group with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest (other than as permitted by the Plan) except by means of a writing signed by the Company and Participant. To the extent contemplated herein or therein, the provisions of the Grant Notice, this Agreement and the Plan will survive any settlement of the Award and will remain in full force and effect.

13.6 **Applicable Law.** The Agreement will be governed by the laws of Delaware as such laws are applied to agreements between Delaware residents entered into and to be performed entirely within Delaware.

13.7 **Counterparts.** The Grant Notice may be executed in counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED the undersigned does hereby sell, assign and transfer unto

____

____ (_________________) shares of the Capital Stock of ASP Isotopes Inc. standing in the undersigned's name on the books of said corporation represented by Certificate No. __________________ herewith and does hereby irrevocably constitute and appoint ________________________________ Attorney to transfer the said stock on the books of said corporation with full power of substitution in the premises.

Dated: ______________________________

____
Signature

____
Print Name

Instructions: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its Company Reacquisition Right set forth in the Restricted Stock Agreement without requiring additional signatures on the part of the Participant.

SAMPLE

Internal Revenue Service

____

____

[IRS Service Center
where Form 1040 is Filed]

Re: Section 83(b) Election

Dear Sir or Madam:

The following information is submitted pursuant to section 1.83-2 of the Treasury Regulations in connection with this election by the undersigned under section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code").

1. The name, address and taxpayer identification number of the taxpayer are:

Name:________________________________

Address:____________________________
____

Social Security Number:____________________

2. The following is a description of each item of property with respect to which the election is made:

________________ shares of common stock of ASP Isotopes Inc. (the "Shares"), acquired from ASP Isotopes Inc. (the "Company") pursuant to a restricted stock grant.

3. The property was transferred to the undersigned on:

Restricted stock grant date: ________________________

The taxable year for which the election is made is:

Calendar Year ___________

4. The nature of the restriction to which the property is subject:

The Shares are subject to automatic forfeiture to the Company upon the occurrence of certain events. This forfeiture provision lapses with regard to a portion of

the Shares based upon the continued performance of services by the taxpayer over time.

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5. The following is the fair market value at the time of transfer (determined without regard to any restriction other than a restriction which by its terms will never lapse) of the property with respect to which the election is made:

$__________________ (_____________ Shares at $__________ per share).

The property was transferred to the taxpayer pursuant to the grant of an award of restricted stock.

6. The following is the amount paid for the property:

No monetary consideration was provided in exchange for the Shares.

7. A copy of this election has been furnished to the Company, the corporation for which the services were performed by the undersigned.

Please acknowledge receipt of this election by date or received-stamping the enclosed copy of this letter and returning it to the undersigned. A self-addressed stamped envelope is provided for your convenience.

Very truly yours,

______________________________ Date: ______________________________

Enclosures

cc: ASP Isotopes Inc.

ASP ISOTOPES INC.
STOCK OPTION AGREEMENT
(U.S. Participants)

ASP Isotopes Inc., a Delaware corporation (the ***"Company"***), has granted to the Participant named in the *Notice of Grant of Stock Option* (the ***"Grant Notice"***) to which this Stock Option Agreement (the ***"Option Agreement"***) is attached an option (the ***"Option"***) to purchase a number of shares of Stock upon the terms and conditions set forth in the Grant Notice and this Option Agreement. The Option has been granted pursuant to and shall in all respects be subject to the terms and conditions of the ASP Isotopes Inc. 2022 Equity Incentive Plan (the ***"Plan"***), as amended, the provisions of which are incorporated herein by reference. By signing the Grant Notice, the Participant: (a) acknowledges receipt of, and represents that the Participant has read and is familiar with, the Grant Notice, this Option Agreement, the Plan and a prospectus for the Plan prepared in connection with the registration with the Securities and Exchange Commission of shares issuable pursuant to the Option (the ***"Plan Prospectus"***), (b) accepts the Option subject to all of the terms and conditions of the Grant Notice, this Option Agreement and the Plan and (c) agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Grant Notice, this Option Agreement or the Plan.

1. **Definitions and Construction.**

1.1 **Definitions.** Unless otherwise defined herein, capitalized terms shall have the meanings assigned to such terms in the Grant Notice or the Plan.

1.2 **Construction.** Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of this Option Agreement. Except when otherwise indicated by the context, the singular shall include the plural and the plural shall include the singular. Use of the term "or" is not intended to be exclusive, unless the context clearly requires otherwise.

2. **Tax Consequences.**

2.1 **Tax Status of Option.** This Option is intended to have the tax status designated in the Grant Notice.

(a) ***Incentive Stock Option.*** If the Grant Notice so designates, this Option is intended to be an Incentive Stock Option within the meaning of Section 422(b) of the Code, but the Company does not represent or warrant that this Option qualifies as such. The Participant should consult with the Participant's own tax advisor regarding the tax effects of this Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code, including, but not limited to, holding period requirements. (NOTE TO PARTICIPANT: If the Option is exercised more than three (3) months after the date on which you cease to be an Employee (other than by reason of your death or permanent and total disability as defined in Section 22(e)(3) of the Code), the Option will be treated as a Nonstatutory Stock Option and not as an Incentive Stock Option to the extent required by Section 422 of the Code.)

(b) ***Nonstatutory Stock Option.*** If the Grant Notice so designates, this Option is intended to be a Nonstatutory Stock Option and shall not be treated as an Incentive Stock Option within the meaning of Section 422(b) of the Code.

2.2 **ISO Fair Market Value Limitation.** *If the Grant Notice designates this Option as an Incentive Stock Option,* then to the extent that the Option (together with all Incentive Stock Options granted to the Participant under all stock option plans of the Participating Company Group, including the Plan) becomes exercisable for the first time during any calendar year for shares having a Fair Market Value greater than One Hundred Thousand Dollars ($100,000), the portion of such options which exceeds such amount will be treated as Nonstatutory Stock Options. For purposes of this Section 2.2, options designated as Incentive Stock Options are taken into account in the order in which they were granted, and the Fair Market Value of stock is determined as of the time the option with respect to such stock is granted. If the Code is amended to provide for a different limitation from that set forth in this Section 2.2, such different limitation shall be deemed incorporated herein effective as of the date required or permitted by such amendment to the Code. If the Option is treated as an Incentive Stock Option in part and as a Nonstatutory Stock Option in part by reason of the limitation set forth in this Section 2.2, the Participant may designate which portion of such Option the Participant is exercising. In the absence of such designation, the Participant shall be deemed to have exercised the Incentive Stock Option portion of the Option first. Separate certificates representing each such portion shall be issued upon the exercise of the Option. (NOTE TO PARTICIPANT: If the aggregate Exercise Price of the Option (that is, the Exercise Price multiplied by the Number of Option Shares) plus the aggregate exercise price of any

other Incentive Stock Options you hold (whether granted pursuant to the Plan or any other stock option plan of the Participating Company Group) is greater than $100,000, you should contact the Plan Administrator to ascertain whether the entire Option qualifies as an Incentive Stock Option.)

3. **Administration.**

All questions of interpretation concerning the Grant Notice, this Option Agreement, the Plan or any other form of agreement or other document employed by the Company in the administration of the Plan or the Option shall be determined by the Committee. All such determinations by the Committee shall be final, binding and conclusive upon all persons having an interest in the Option, unless fraudulent or made in bad faith. Any and all actions, decisions and determinations taken or made by the Committee in the exercise of its discretion pursuant to the Plan or the Option or other agreement thereunder (other than determining questions of interpretation pursuant to the preceding sentence) shall be final, binding and conclusive upon all persons having an interest in the Option. Any Officer shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the Officer has apparent authority with respect to such matter, right, obligation, or election.

4. **Exercise of the Option.**

4.1 **Right to Exercise.** Except as otherwise provided herein, the Option shall be exercisable on and after the Vesting Start Date and prior to the termination of the Option (as provided in Section 6) in an amount not to exceed the number of Vested Shares less the number of shares previously acquired upon exercise of the Option. In no event shall the Option be exercisable for more shares than the Number of Option Shares, as adjusted pursuant to Section 9.

4.2 **Method of Exercise.** Exercise of the Option shall be by means of electronic or written notice (the ***"Exercise Notice"***) in a form authorized by the Company. An electronic Exercise Notice must be digitally signed or authenticated by the Participant in such manner as required by the notice and transmitted to the Company or an authorized representative of the Company (including a third-party administrator designated by the Company). In the event that the Participant is not authorized or is unable to provide an electronic Exercise Notice, the Option shall be exercised by a written Exercise Notice addressed to the Company, which shall be signed by the Participant and delivered in person, by certified or registered mail, return receipt requested, by confirmed facsimile transmission, or by such other means as the Company may permit, to the Company, or an authorized representative of the Company (including a third-party administrator designated by the Company). Each Exercise Notice, whether electronic or written, must state the Participant's election to exercise the Option, the number of whole shares of Stock for which the Option is being exercised and such other representations and agreements as to the Participant's investment intent with respect to such shares as may be required pursuant to the provisions of this Option Agreement. Further, each Exercise Notice must be received by the Company prior to the termination of the Option as set forth in Section 6 and must be accompanied by full payment of the aggregate Exercise Price for the number of shares of Stock being purchased. The Option shall be deemed to be exercised upon receipt by the Company of such electronic or written Exercise Notice and the aggregate Exercise Price.

4.3 **Payment of Exercise Price.**

(a) ***Forms of Consideration Authorized.*** Except as otherwise provided below, payment of the aggregate Exercise Price for the number of shares of Stock for which the Option is being exercised shall be made (i) in cash, by check or in cash equivalent; (ii) if permitted by the Company and subject to the limitations contained in Section 4.3(b), by means of (1) a Cashless Exercise, (2) a Net-Exercise, or (3) a Stock Tender Exercise; or (iii) by any combination of the foregoing.

(b) ***Limitations on Forms of Consideration.*** The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to establish, decline to approve or terminate any program or procedure providing for payment of the Exercise Price through any of the means described below, including with respect to the Participant notwithstanding that such program or procedures may be available to others. Any determination by the Company with respect to whether to permit the withholding or tendering of shares of Stock to satisfy the Exercise Price shall be made by the Committee if the Participant is subject to Section 16 of the Exchange Act.

(i) **Cashless Exercise.** A ***"Cashless Exercise"*** means the delivery of a properly executed Exercise Notice together with irrevocable instructions to a broker in a form acceptable to the Company providing for the assignment to the Company of the proceeds of a sale or loan with respect to shares of Stock acquired upon the exercise of the Option in an amount not less than the aggregate Exercise Price for such shares (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System).

(ii) **Net-Exercise.** A ***"Net-Exercise"*** means the delivery of a properly executed Exercise Notice electing a procedure pursuant to which (1) the Company will reduce the number of shares otherwise issuable to the Participant upon the exercise of the Option by the largest whole number of shares having a Fair Market Value that does not exceed the aggregate Exercise Price for the shares with respect to which the Option is exercised, and (2) the Participant shall pay to the Company in cash the remaining balance of such aggregate Exercise Price not satisfied by such reduction in the number of whole shares to be issued. Following a Net-Exercise, the number of shares remaining subject to the Option, if any, shall be reduced by the sum of (1) the net number of shares issued to the Participant upon such exercise, and (2) the number of shares deducted by the Company for payment of the aggregate Exercise Price.

(iii) **Stock Tender Exercise.** A ***"Stock Tender Exercise"*** means the delivery of a properly executed Exercise Notice accompanied by (1) the Participant's tender to the Company, or attestation to the ownership, in a form acceptable to the Company of whole shares of Stock having a Fair Market Value that does not exceed the aggregate Exercise Price for the shares with respect to which the Option is exercised, and (2) the Participant's payment to the Company in cash of the remaining balance of such aggregate Exercise Price not satisfied by such shares' Fair Market Value. A Stock Tender Exercise shall not be permitted if it would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption of the Company's stock. If required by the Company, the Option may not be exercised by tender to the Company, or attestation to the ownership, of shares of Stock unless such shares either have been owned by the Participant for a period of time required by the Company (and not used for another option exercise by attestation during such period) or were not acquired, directly or indirectly, from the Company.

4.4 **Tax Withholding.**

(a) ***In General.*** At the time the Option is exercised, in whole or in part, or at any time thereafter as requested by a Participating Company, the Participant hereby authorizes withholding from payroll and any other amounts payable to the Participant, and otherwise agrees to make adequate provision for (including by means of a Cashless Exercise to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax (including any social insurance) withholding obligations of the Participating Company Group, if any, which arise in connection with the Option. The Company shall have no obligation to deliver shares of Stock until the tax withholding obligations of the Participating Company Group have been satisfied by the Participant.

(b) ***Withholding in Shares.*** The Company shall have the right, but not the obligation, to require the Participant to satisfy all or any portion of a Participating Company's tax withholding obligations upon exercise of the Option by deducting from the shares of Stock otherwise issuable to the Participant upon such exercise a number of whole shares having a fair market value, as determined by the Company as of the date of exercise, not in excess of the amount of such tax withholding obligations

determined by the applicable minimum statutory withholding rates if required to avoid liability classification of the Option under generally accepted accounting principles in the United States. Any determination by the Company with respect to whether to permit the withholding of shares of Stock to satisfy the tax withholding obligations shall be made by the Committee if the Participant is subject to Section 16 of the Exchange Act.

4.5 **Beneficial Ownership of Shares; Certificate Registration.** The Participant hereby authorizes the Company, in its sole discretion, to deposit for the benefit of the Participant with any broker with which the Participant has an account relationship of which the Company has notice any or all shares acquired by the Participant pursuant to the exercise of the Option. Except as provided by the preceding sentence, a certificate for the shares as to which the Option is exercised shall be registered in the name of the Participant, or, if applicable, in the names of the heirs of the Participant.

4.6 **Restrictions on Grant of the Option and Issuance of Shares.** The grant of the Option and the issuance of shares of Stock upon exercise of the Option shall be subject to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. The Option may not be exercised if the issuance of shares of Stock upon exercise would constitute a violation of any applicable federal, state or foreign securities laws or other law or regulations or the requirements of any stock exchange or market system upon which the Stock may then be listed. In addition, the Option may not be exercised unless (i) a registration statement under the Securities Act shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option, or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. THE PARTICIPANT IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISED UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE PARTICIPANT MAY NOT BE ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS VESTED. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any shares subject to the Option shall relieve the Company of any liability in respect of the failure to issue or sell such shares as to which such requisite authority shall not have been obtained. As a condition to the exercise of the Option, the Company may require the Participant to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

4.7 **Fractional Shares.** The Company shall not be required to issue fractional shares upon the exercise of the Option.

5. **Nontransferability of the Option.**

During the lifetime of the Participant, the Option shall be exercisable only by the Participant or the Participant's guardian or legal representative. The Option shall not be subject in any manner to anticipation, alienation, sale, exchange, transfer, assignment, pledge, encumbrance, or garnishment by creditors of the Participant or the Participant's beneficiary, except transfer by will or by the laws of descent and distribution. Following the death of the Participant, the Option, to the extent provided in Section 7, may be exercised by the Participant's legal representative or by any person empowered to do so under the deceased Participant's will or under the then applicable laws of descent and distribution.

6. **Termination of the Option.**

The Option shall terminate and may no longer be exercised after the first to occur of (a) the close of business on the Option Expiration Date, (b) the close of business on the last date for exercising the Option following termination of the Participant's Service as described in Section 7, or (c) a Change in Control to the extent provided in Section 8.

7. **Effect of Termination of Service.**

7.1 **Option Exercisability.** The Option shall terminate immediately upon the Participant's termination of Service to the extent that it is then unvested and shall be exercisable after the Participant's termination of Service to the extent it is then vested only during the applicable time period as determined below and thereafter shall terminate.

(a) ***Disability.*** If the Participant's Service terminates because of the Disability of the Participant, the Option, to the extent unexercised and exercisable for Vested Shares on the date on which the Participant's Service terminated, may be exercised by the Participant (or the Participant's guardian or legal representative) at any time prior to the expiration of twelve (12) months after the date on which the Participant's Service terminated, but in any event no later than the Option Expiration Date.

(b) ***Death.*** If the Participant's Service terminates because of the death of the Participant, the Option, to the extent unexercised and exercisable for Vested Shares on the date on which the Participant's Service terminated, may be exercised by the Participant's legal representative or other person who acquired the right to exercise the Option by reason of the Participant's death at any time prior to the expiration of twelve (12) months after the date on which the Participant's Service terminated, but in any event no later than the Option Expiration Date. The Participant's Service shall be deemed to have terminated on account of death if the Participant dies within three (3) months after the Participant's termination of Service other than for Cause.

(c) ***Termination for Cause.*** Notwithstanding any other provision of this Option Agreement to the contrary, if the Participant's Service is terminated for Cause or if, following the Participant's termination of Service and during any period in which the Option otherwise would remain exercisable, the Participant engages in any act that would constitute Cause, the Option shall terminate in its entirety and cease to be exercisable immediately upon such termination of Service or act.

(d) ***Other Termination of Service.*** If the Participant's Service terminates for any reason, except Disability, death or Cause, the Option, to the extent unexercised and exercisable for Vested Shares by the Participant on the date on which the Participant's Service terminated, may be exercised by the Participant at any time prior to the expiration of three (3) months after the date on which the Participant's Service terminated, but in any event no later than the Option Expiration Date.

7.2 **Extension if Exercise Prevented by Law.** Notwithstanding the foregoing, other than termination of the Participant's Service for Cause, if the exercise of the Option within the applicable time periods set forth in Section 7.1 is prevented by the provisions of Section 4.6, the Option shall remain exercisable until the later of (a) thirty (30) days after the date such exercise first would no longer be prevented by such provisions, or (b) the end of the applicable time period under Section 7.1, but in any event no later than the Option Expiration Date.

8. **Effect of Change in Control**.

In the event of a Change in Control, the Option shall be subject to and treated as set forth in Section 13 of the Plan.

9. **Adjustments for Changes in Capital Structure**.

The Option shall be subject to and treated as set forth in Section 4.3 of the Plan.

10. **Rights as a Stockholder, Director, Employee or Consultant**.

The Participant shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of the shares for which the Option has been exercised (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for dividends, distributions or other rights for which the record date is prior to the date the shares are issued, except as provided in Section 9. If the Participant is an Employee, the Participant understands and acknowledges that, except as otherwise provided in a separate, written employment agreement between a Participating Company and the Participant, the Participant's employment is "at will" and is for no specified term. Nothing in this Option Agreement shall confer upon the Participant any right to continue in the Service of a Participating Company or interfere in any way with any right of the Participating Company Group to terminate the Participant's Service as a Director, an Employee or Consultant, as the case may be, at any time.

11. **Notice of Sales Upon Disqualifying Disposition**.

The Participant shall dispose of the shares acquired pursuant to the Option only in accordance with the provisions of this Option Agreement. In addition, *if the Grant Notice designates this Option as an Incentive Stock Option,* the Participant shall (a) promptly notify the Plan Administrator if the Participant disposes of any of the shares acquired pursuant to the Option within one (1) year after the date the Participant exercises all or part of the Option or within two (2) years after the Date of Grant and (b) provide the Company with a description of the circumstances of such disposition. Until such time as the Participant disposes of such shares in a manner consistent with the provisions of this Option Agreement, unless otherwise expressly authorized by the Company, the Participant shall hold all shares acquired pursuant to the Option in the Participant's name (and not in the name of any nominee) for the one-year period immediately after the exercise of the Option and the two-year period immediately after Date of Grant. At any time during the one-year or two-year periods set forth above, the Company may place a legend on any certificate representing shares acquired pursuant to the Option requesting the transfer agent for the Company's stock to notify the Company of any such transfers. The obligation of the Participant to notify the Company of any such transfer shall continue notwithstanding that a legend has been placed on the certificate pursuant to the preceding sentence.

12. **Legends**.

The Company may at any time place legends referencing any applicable federal, state or foreign securities law restrictions on all certificates representing shares of Stock subject to the provisions of this Option Agreement. The Participant shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to the Option in the possession of the Participant in order to carry out the provisions of this Section. Unless otherwise specified by the Company, legends placed on such certificates may include, but shall not be limited to, the following:

"THE SHARES EVIDENCED BY THIS CERTIFICATE WERE ISSUED BY THE CORPORATION TO THE REGISTERED HOLDER UPON EXERCISE OF AN INCENTIVE STOCK OPTION AS DEFINED IN SECTION 422 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED ("ISO"). IN ORDER TO OBTAIN THE PREFERENTIAL TAX TREATMENT AFFORDED TO ISOs, THE SHARES SHOULD NOT BE TRANSFERRED PRIOR TO EITHER THE TWO-YEAR ANNIVERSARY OF THE DATE OF GRANT OR THE ONE-YEAR ANNIVERSARY OF THE DATE OF EXERCISE. SHOULD THE REGISTERED HOLDER ELECT TO TRANSFER ANY OF THE SHARES PRIOR TO THIS DATE AND FOREGO ISO TAX TREATMENT, THE TRANSFER AGENT FOR THE SHARES SHALL NOTIFY THE CORPORATION IMMEDIATELY. THE REGISTERED HOLDER SHALL HOLD ALL SHARES PURCHASED UNDER THE INCENTIVE STOCK OPTION IN THE REGISTERED HOLDER'S NAME (AND NOT IN THE NAME OF ANY NOMINEE) PRIOR TO THIS DATE OR UNTIL TRANSFERRED AS DESCRIBED ABOVE."

13. **Miscellaneous Provisions**.

13.1 **Termination or Amendment.** The Committee may terminate or amend the Plan or the Option at any time; provided, however, that except as provided in Section 8 in connection with a Change in Control, no such termination or amendment may have a materially adverse effect on the Option or any unexercised portion thereof without the consent of the Participant unless such termination or amendment is necessary to comply with any applicable law or government regulation. No amendment or addition to this Option Agreement shall be effective unless in writing.

13.2 **Further Instruments.** The parties hereto agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Option Agreement.

13.3 **Binding Effect.** This Option Agreement shall inure to the benefit of the successors and assigns of the Company and, subject to the restrictions on transfer set forth herein, be binding upon the Participant and the Participant's heirs, executors, administrators, successors and assigns.

13.4 **Delivery of Documents and Notices.** Any document relating to participation in the Plan or any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given (except to the extent that this Option Agreement provides for effectiveness only upon actual receipt of such notice) upon personal delivery, electronic delivery at the e-mail address, if any, provided for the Participant by a Participating Company, or upon deposit in the U.S. Post Office or foreign postal service, by registered or certified mail, or with a nationally recognized overnight courier service, with postage and fees prepaid, addressed to the other party at the address of such party set forth in the Grant Notice or at such other address as such party may designate in writing from time to time to the other party.

(a) ***Description of Electronic Delivery and Signature.*** The Plan documents, which may include but do not necessarily include: the Plan, the Grant Notice, this Option Agreement, the Plan Prospectus, and any reports of the Company provided generally to the Company's stockholders, may be delivered to the Participant electronically. In addition, if permitted by the Company, the Participant may deliver electronically the Grant Notice and Exercise Notice called for by Section 4.2 to the Company or to such third party involved in administering the Plan as the Company may designate from time to time. Such means of electronic delivery may include but do not necessarily include the delivery of a link to a Company intranet or the Internet site of a third party involved in administering the Plan, the delivery of the document via e-mail or such other means of electronic delivery specified by the Company. Any and all such documents and notices may be electronically signed.

(b) ***Consent to Electronic Delivery and Signature.*** The Participant acknowledges that the Participant has read Section 13.4(a) of this Option

Agreement and consents to the electronic delivery of the Plan documents and, if permitted by the Company, the delivery of the Grant Notice and Exercise Notice, as described in Section 13.4(a). The Participant agrees that any and all such documents requiring a signature may be electronically signed and that such electronic signature shall have the same effect as handwritten signature for the purposes of validity, enforceability and admissibility. The Participant acknowledges that he or she may receive from the Company a paper copy of any documents delivered electronically at no cost to the Participant by contacting the Company by telephone or in writing. The Participant further acknowledges that the Participant will be provided with a paper copy of any documents if the attempted electronic delivery of such documents fails. Similarly, the Participant understands that the Participant must provide the Company or any designated third-party administrator with a paper copy of any documents if the attempted electronic delivery of such documents fails. The Participant may revoke his or her consent to the electronic delivery of documents described in Section 13.4(a) or may change the electronic mail address to which such documents are to be delivered (if the Participant has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Participant understands that he or she is not required to consent to electronic delivery of documents described in Section 13.4(a).

13.5 **Integrated Agreement.** The Grant Notice, this Option Agreement and the Plan, together with the Superseding Agreement, if any, shall constitute the entire understanding and agreement of the Participant and the Participating Company Group with respect to the subject matter contained herein and supersede any prior agreements, understandings, restrictions, representations, or warranties among the Participant and the Participating Company Group with respect to such subject matter. To the extent contemplated herein, the provisions of the Grant Notice, the Option Agreement and the Plan shall survive any exercise of the Option and shall remain in full force and effect.

13.6 **Applicable Law.** This Option Agreement shall be governed by the laws of the State of Delaware as such laws are applied to agreements between Delaware residents entered into and to be performed entirely within the State of Delaware.

13.7 **Counterparts.** The Grant Notice may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

ASP ISOTOPES INC.
NOTICE OF GRANT OF STOCK OPTION
(U.S. Participants)

ASP Isotopes Inc., a Delaware corporation (the *"**Company**"*), has granted to the Participant an option (the *"**Option**"*) to purchase certain shares of Stock pursuant to the ASP Isotopes Inc. 2022 Equity Incentive Plan (the *"**Plan**"*), as follows:

Participant: __________________ **Employee ID:** _______________
Date of Grant: __________________
Number of Option Shares: __________________, subject to adjustment as provided by the Option Agreement.
Exercise Price: $__________________
Vesting Start Date:
Option Expiration Date: The tenth anniversary of the Date of Grant.
Tax Status of Option: __________________Stock Option. (Enter "Incentive" or "Nonstatutory." If blank, this Option will be a Nonstatutory Stock Option.)
Vested Shares: Except as provided in the Option Agreement and provided the Participant's Service has not terminated prior to the applicable date, the number of Vested Shares (disregarding any resulting fractional share) as of any date is determined by multiplying the Number of Option Shares by the *"**Vested Percentage**"* determined as of such date, as follows:

Vesting Date	**Vested Percentage**
______________________________	___
______________________________	___
______________________________	___

Superseding Agreement: None.

By their signatures below or by electronic acceptance or authentication in a form authorized by the Company, the Company and the Participant agree that the Option is governed by this Grant Notice and by the provisions of the Option Agreement and the Plan, both of which are made a part of this document, and by the Superseding Agreement, if any. The Participant acknowledges that copies of the Plan, the Option Agreement and the prospectus for the Plan are available on the Company's internal web site and may be viewed and printed by the Participant for attachment to the Participant's copy of this Grant Notice. The Participant represents that the Participant has read and is familiar with the provisions of the Option Agreement and the Plan, and hereby accepts the Option subject to all of their terms and conditions.

ASP ISOTOPES INC.

By: ______________________________
[Officer Name]
[Officer Title]

Address:

PARTICIPANT

____
Signature

Date

____
Address

ATTACHMENTS: 2022 Equity Incentive Plan, as amended, Stock Option Agreement, Exercise Notice, and Plan Prospectus

ASP Isotopes Inc.
2021 Stock Incentive Plan

Performance Share Award Grant Notice

ASP Isotopes Inc., a Delaware corporation (the "Company"), hereby grants Paul Mann, a resident of the State of Florida (the "Recipient"), an award (this "Award") of performance-based shares of Restricted Stock ("Performance Shares") under the Company's 2021 Stock Incentive Plan (the "Plan").

1. Number of Performance Shares:

The number of Performance Shares granted to the Recipient pursuant to this Award is 1,500,000.

2. Date of Grant:

The date of grant of the Performance Shares is October 4, 2021 (the "Grant Date").

3. Vesting Conditions:

See Attachment A.

4. Additional Terms:

The Performance Shares are subject to all of the terms and conditions set forth herein and in the Plan and the Performance Share Award Agreement (the "Award Agreement"), each of which is attached hereto and incorporated herein in their entirety.

5. Execution:

By his signature below or by electronic acceptance or authentication in a form authorized by the Company, the Recipient hereby: (a) agrees to be bound by the terms and conditions of the Plan, the Award Agreement and this Grant Notice; (b) acknowledges and agrees that the Recipient has reviewed the Plan, the Award Agreement, and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, the Award Agreement and this Grant Notice; and (c) agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Plan, the Award Agreement, or this Grant Notice (including any exhibit attached hereto).

ASP ISOTOPES INC.		**RECIPIENT**	
By:	/s/ Robert Ainscow	By:	/s/ Paul Mann
Print Name:	Robert Ainscow	Print Name:	Paul Mann
Title:	Vice President	Address:	

Attachments:

Attachment A – Vesting Conditions
Attachment B – Performance Share Award Agreement
Attachment C – ASP Isotopes Inc. 2021 Stock Incentive Plan

Attachment A

Vesting Conditions

General

The number of Performance Shares that may become vested and nonforfeitable will range for zero to 1,500,000, depending on the Adjusted Share Price on the Measurement Date. If on the Measurement Date, the Adjusted Share Price:

(a) is less than $5.00, then all Performance Shares covered by this award will be immediately forfeited for no consideration;

(b) equals or exceeds $5.00, then the Recipient will vest in 20% of the Performance Shares on the Measurement Date;

(c) equals or exceeds $7.50, then the Recipient will vest in 40% of the Performance Shares on the Measurement Date;

(d) equals or exceeds $10.00, then the Recipient will vest in 60% of the Performance Shares on the Measurement Date;

(e) equals or exceeds $12.50, then the Recipient will vest in 80% of the Performance Shares on the Measurement Date; and

(f) equals or exceeds $15.00, then the Recipient will vest in 100% of the Performance Shares on the Measurement Date;

provided, however, that if the Adjusted Share Price exceeds $12.00 for 90 consecutive trading days before the Measurement Date, then the Recipient will immediately vest in

100% of the Performance Shares.

Any Performance Shares that do not become vested on or before the Measurement Date shall be forfeited for no consideration immediately following the Measurement Date. For avoidance of doubt, termination of the Recipient's Continuous Service for any reason shall not result in the forfeiture of any Performance Shares covered by this Award.

Interpolation

If the Adjusted Share Price on the Measurement Date is between any of the values set forth above, the Recipient shall vest in that percentage of the Performance Shares that is the mathematical linear interpolation between the specified percentages at the defined ends of the applicable spectrum.

Defined Terms

For purposes of this Agreement, the following terms shall have the following meanings:

(A) "***Adjusted Share Price***" means the sum of (x) the average of the Adjusted Closing Prices of the shares of Common Stock during the 90 consecutive trading days ending on the specified measurement date (or if such measurement date does not fall on a trading day, the immediately preceding trading day); and (y)(i) the aggregate value of any dividends paid over the Performance Period on the shares of Common Stock (including per-common-share-equivalent payments made to holders of common share derivatives), divided by (ii) the number of Diluted Shares as of the measurement date.

(B) "***Adjusted Closing Prices***" means the closing prices of the Common Stock on its primary trading platform, adjusted equitably by the Committee to eliminate the effect of any stock split, stock dividend, reverse stock split or consolidation of the common stock after the Grant Date.

(D) "***Diluted Shares***" means the outstanding shares Common Stock plus the number of shares of Common Stock into which any outstanding shares of preferred stock are convertible by the holder without payment or material conditions to conversion.

(E) "***Performance Period***" means the period from the Grant Date to and including the Measurement Date.

(F) "***Measurement Date***" means the first to occur of (a) the date that is the third anniversary of the Grant Date or (b) the date on which occurs a Change in Control.

Attachment B

Performance-Based Restricted Stock Unit Award Agreement

Attachment C

ASP Isotopes Inc.
2021 Stock Incentive Plan

ASP Isotopes Inc.
2021 Stock Incentive Plan

PERFORMANCE SHARE AWARD AGREEMENT

Pursuant to the Company's 2021 Stock Incentive Plan (the "Plan"), the Company has granted to the Recipient an award of the number of performance-based shares of Restricted Stock ("Performance Shares") set forth in that certain Performance Share Grant Notice (the "Grant Notice") executed by the Company and the Recipient as of the Grant Date. Capitalized terms used but not otherwise defined in this Performance Share Award Agreement (this "Agreement") shall have the meanings set forth in the Plan and the Grant Notice, each of which is attached hereto and incorporated herein in their entirety.

The Performance Shares issued to the Recipient pursuant to this Agreement and the Grant Notice are subject to all of the terms and conditions set forth in this Agreement and in the Plan and the Grant Notice.

1. Award of Performance Shares.

(a) Grant of Performance Shares. Pursuant to the Grant Notice and upon the terms and conditions set forth in the Plan and this Agreement, effective as of the Grant Date the Company hereby grants to the Recipient an award of Performance Shares under the Plan in consideration of the Participant's past and/or continued employment with or service to the Company or an Affiliate and for other good and valuable consideration.

(b) Escrow of Performance Shares. The Company shall evidence the Performance Shares in the manner that it deems appropriate. The Company may issue in the Recipient's name a certificate or certificates representing the Performance Shares and retain that certificate or those certificates until the restrictions on such Performance Shares expire as contemplated in Section 1(e) of this Agreement and described in the Grant Notice or the Performance Shares are forfeited as contemplated in Section 1(d) of this Agreement and described in the Grant Notice. If the Company certificates the Performance Shares, the Recipient shall execute one or more stock powers in blank for those certificates and deliver those stock powers to the Company. The Company shall hold the Performance Shares and the related stock powers pursuant to the terms of this Agreement, if applicable, until such time as (i) a certificate or certificates for the Performance Shares are delivered to the Recipient, (ii) the Performance Shares are otherwise transferred to the Recipient free of restrictions, or (iii) the Performance Shares are canceled and forfeited pursuant to this Agreement.

(c) Ownership of Restricted Shares. From and after the time the Performance Shares are issued in the Recipient's name, the Recipient will be entitled to all the rights of absolute ownership of the Performance Shares, including the right to vote those shares and to receive dividends thereon if, as, and when declared by the Board, subject, however,

to the terms, conditions and restrictions set forth in this Agreement; *provided*, *however*, that each dividend payment will be made no later than the end of the calendar year in which the dividends are paid to the holders of Common Stock or, if later, the 15th day of the third month following the date the dividends are paid to the holders of Common Stock.

(d) Restrictions; Forfeiture. The Performance Shares are restricted in that they may not be sold, transferred or otherwise alienated or hypothecated until these restrictions are removed or expire as contemplated in Section 1(e) of this Agreement and as described in the Grant Notice. The Performance Shares are also restricted in the sense that they may be forfeited to the Company (the "Forfeiture Restrictions"). The Recipient hereby agree that if the Performance Shares are forfeited, the Company shall deliver the Performance Shares to the Company's transfer agent for, at the Company's election, cancellation or transfer to the Company.

(e) Expiration of Restrictions and Risk of Forfeiture. The restrictions on the Performance Shares granted pursuant to this Agreement will expire and the Performance Shares will become transferable and nonforfeitable as set forth in the Grant Notice, except as otherwise provided in this Agreement.

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2. Transferability of Shares of Common Stock Acquired under Award.

A holder of shares of Common Stock acquired pursuant to this Award ("Acquired Shares") or any beneficial interest therein (a "Holder") may not transfer any Acquired Shares, or any beneficial interest therein, unless:

(a) the Acquired Shares subject to the transfer are then registered under the Securities Act and any applicable state securities or "blue sky" laws or, if such Acquired Shares are not then so registered, the Company has determined that such transfer would be exempt from the registration requirements of the Securities Act and such state laws;

(b) such transfer complies with all other applicable laws and regulations and contractual obligations applicable to or binding on the Company, the Common Stock or the Holder;

(c) the transferee (if other than the Company) agrees in writing (in such form as the Company may require) to be bound by the provisions of this Section 2 and of Section 3 through Section 7 below with respect to such Acquired Shares, or interest therein, and any subsequent transfer thereof; and

(d) such transfer satisfies one or more of the following conditions:

(i) such transfer is approved in advance by the Committee in writing;

(ii) such transfer is made to the Company;

(iii) such transfer is made to (A) any member of the Holder's immediate family (i.e., spouse, lineal descendant, father, mother, brother or sister), (B) any custodian or trustee for the Holder's account and/or the account of one or more members of the Holder's immediate family or (C) any limited partnership of which all of the general partners and limited partners consist of (1) the Holder, (2) one or more members of the Holder's immediate family and/or (3) any trust of which only the Holder or one or more members of the Holder's immediate family are the beneficiaries (such family members, custodians, trustees and limited partnerships are referred to collectively as "Related Persons");

(iv) such transfer is made following the death of the Holder by will or pursuant to the laws of descent and distribution; or

(v) the Holder provides the Company with a Notice of Offer (as defined in Section 3(a) below) and such transfer is permitted by Section 3(e) below.

Any transfer or purported transfer by a Holder of any Acquired Shares, or any beneficial interest therein, that is not permitted by this Section 2 shall be null and void, and such Acquired Shares (together with any other Acquired Shares held by such Holder) shall thereupon become subject to the Company's right of repurchase pursuant to Section 4 below.

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3. Right of First Refusal.

(a) Notice of Offer. A Holder may at any time, and from time to time, provide the Company with a written notice (a "Notice of Offer") that the Holder desires to transfer all of any portion of the Acquired Shares to a third party pursuant to a *bona fide* written offer (the "Offer"), a copy of which shall be enclosed with the Notice of Offer. The Notice of Offer shall set forth the number of Acquired Shares that the Holder desires to sell (the "Offered Shares"), the name of the person to whom the Holder desires to make such sale (the "Transferee"), the form and amount of consideration that has been offered in connection with the Offer and the other material terms and conditions of the Offer. The Notice of Offer shall also set forth the Holder's irrevocable offer to sell the Offered Shares to the Company for the lesser of (i) the aggregate purchase price set forth in the Offer or (ii) the aggregate Fair Market Value of the Offered Shares as of the date of the Notice of Offer (such lesser amount, the "Offer Price"), in accordance with this Section 3.

(b) Company Right of Purchase. Upon receipt of a Notice of Offer, the Company shall have the right and option (but not the obligation) to purchase all (but not less than all) of the Offered Shares for the Offer Price in accordance with this Section 3. The Company will be entitled to exercise this right at any time during the period (the "Offer Period") beginning on the date the Notice of Offer is delivered to the Secretary of the Company and ending on the thirtieth (30th) day thereafter; provided, however, that if non-cash consideration is specified in the Offer, the end of the Offer Period will be tolled until such later date that is ten (10) days after the final determination of the fair market value of such non-cash consideration pursuant to Section 3(f) below.

(c) Exercise of Purchase Right. To exercise such purchase right, the Company must provide the Holder with a notice of exercise (an "Exercise Notice") during the Offer Period. The Exercise Notice shall state that the Company is exercising its right and option to purchase from the Holder all (but not less than all) of the Offered Shares for the Offer Price. The Exercise Notice shall also set forth the Fair Market Value of the Offered Shares as of the date of the Notice of Offer (determined in accordance with the Plan), the Offer Price and the date on which the purchase of the Offered Shares will be settled (which date shall be no later than ten (10) days after the Exercise Notice is delivered to the Holder).

(d) Closing of Purchase. The settlement of the Company's purchase of the Offered Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing the Offered Shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the Offer Price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

(e) Conditions of Permitted Transfer. If the Company does not provide the Holder with an Exercise Notice during the Offer Period pursuant to Section 3(c) above (or if the Company timely provides the Holder with an Exercise Notice but does not timely consummate the purchase of the Offered Shares pursuant to Section 3(d) above), the Holder may sell the Offered Shares to the Transferee during the sixty (60) day period commencing on the expiration of the Offer Period on the terms and conditions specified in the Offer.

(f) Valuation of Non-Cash Consideration. If the consideration that has been offered in connection with the Offer includes any non-cash consideration, the dollar value of such non-cash consideration for purposes of calculating the Offer Price will be its fair market value, as reasonably determined by the Committee in good faith as soon as practicable following the Company's receipt of the Notice of Offer.

4. Rights of Repurchase of Acquired Shares.

(a) Triggering Events. The Company shall have the right and option (but not the obligation) to purchase all (or any lesser portion that the Company may elect) of the Acquired Shares held by a Holder from such Holder in any of the following circumstances:

(i) upon the transfer or purported transfer of any Acquired Shares, or any beneficial interest therein, by the Holder (or a Related Person of the Holder) in violation of Section 2; or

(ii) upon any involuntary transfer of any Acquired Shares, or any beneficial interest therein, by the Holder (whether upon the death, divorce or bankruptcy of the Holder or for any other reason), other than a transfer made upon the death of the Holder by will or pursuant to the laws of descent and distribution if such transfer satisfies the conditions set forth in Section 2; provided, however, that rights of repurchase pursuant to this clause (iii) shall extend to only the Acquired Shares that are subject to such involuntary transfer (and not to any other Acquired Shares of the Holder).

(b) Exercise of Repurchase Right. The Company will be entitled to exercise a repurchase right pursuant to Section 4(a) at any time prior to the date that is twelve (12) months after the date on which the Company receives notice of (or the President or the Secretary of the Company otherwise has actual knowledge of) the events giving rise to such repurchase right (the "Repurchase Period").

(c) Purchase Price Determination. The purchase price payable by the Company for each Acquired Share for which it exercises a repurchase right pursuant to this Section 4 shall be as follows:

(i) if the repurchase right arises under Section 4(a)(i), Section 4(a)(iii) or Section 4(a)(iv), the purchase price shall be the lesser of (A) the Purchase Price, as adjusted pursuant to Section 15(a) of the Plan, and (B) the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right; and

(ii) if the repurchase right arises under Section 4(a)(ii) or Section 4(a)(v), the purchase price shall be the Fair Market Value (determined in accordance with the Plan) as of the date of the event giving rise to the Company's repurchase right.

(d) Exercise of Repurchase Right. To exercise such repurchase right, the Company must provide the Holder with a notice of exercise (a "Repurchase Notice") during the Repurchase Period. The Repurchase Notice shall state that the Company is exercising its repurchase right, the number of Acquired Shares for which the Company is exercising its repurchase right, the purchase price payable by the Company for such shares (determined in accordance with Section 4(c)) and the date on which the repurchase of such shares will be settled (which date shall be no later than thirty (30) days after the Repurchase Notice is delivered to the Holder).

(e) Closing of Repurchase. The settlement of the Company's repurchase of such Acquired Shares will be effected by the Holder's delivery to the Company of the certificate(s) representing such shares (properly endorsed for transfer), free and clear of all liens and encumbrances, and such other instruments of transfer as the Company may reasonably request, against payment by the Company to the Holder of the purchase price in cash (by check or such other means as the Company and the Holder may agree) or by cancellation of indebtedness owed by the Holder to the Company.

5. Bring Along Rights.

(a) Approved Sale Covenants. If the Company provides written notice to a Holder that a Sale of the Company (as defined below) has been approved by a majority of the Board (an "Approved Sale"), each Holder shall (i) vote for such Approved Sale at any meeting of the stockholders of the Company or execute a written consent in lieu of such meeting to consent to and approve such Approved Sale (to the extent any such vote or consent is required to effect the Approved Sale or is otherwise desired by the Company), (ii) waive any dissenters' rights, appraisal rights and other similar rights with respect to the Approved Sale and otherwise raise no objections against such Approved Sale or the process by which it was arranged, (iii) cooperate fully with the Company (and the purchasers) to effectuate the Approved Sale and (iv) execute and deliver such documents and instruments, and take such other actions, as the Company (and the purchasers) may reasonably request to effect the Approved Sale, including, without limitation, the execution of any merger, sale, redemption or other similar agreement and the making of customary representations, warranties and indemnifications (including participating in any escrow arrangements and similar arrangements). As used herein, "Sale of the Business" shall mean any transaction or series of related transactions (whether structured as a stock sale, recapitalization, merger, consolidation, reorganization, asset sale, joint venture or otherwise) negotiated on an arm's-length basis that results, directly or indirectly, in the sale or transfer of all or substantially all of the assets of the Company or eighty percent (80%) of more of the shares of capital stock of the Company to an unaffiliated third party.

(b) Allocation of Liability. In connection with an Approved Sale, each Holder agrees to be severally liable (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) for any indemnification or other obligations of the stockholders of the Company (through an acquisition agreement, contribution agreement or as otherwise requested by the Company), except that (i) the Holder shall not be liable for any obligations that relate specifically to another stockholder (such as indemnification with respect to representations and warranties given by such other stockholder regarding such other stockholder's title to and ownership of capital stock) and (ii) the Holder may be solely liable for any obligations that relate specifically to such Holder.

(c) Conditions to Covenants. The covenants and obligations of a Holder with respect to an Approved Sale are subject to the conditions that (i) the consideration payable in connection with the Approved Sale and available for distribution to the stockholders of the Company must be allocated among such stockholders in accordance with the liquidation priorities set forth in the Certificate of Incorporation of the Company (as it may be amended and in effect from time to time) and (ii) each holder of a particular class or series of capital stock of the Company receives the same form and amount of consideration per share (and if any holder of a particular class or series of capital stock is given an option as to the form or amount of consideration to be received, all holders of such class or series must be given the same option).

(d) Purchaser Representative. If the Company enters into any negotiation or transaction for which Rule 506 promulgated by the Securities and Exchange Commission

(the "SEC") or any similar rule then in effect may be available, the Holder (if not then an "accredited investor" within the meaning of Rule 501(a) promulgated by the SEC) will, at the request of the Company, appoint a purchaser representative (as such term is defined in Rule 501 promulgated by the SEC) approved by the Company and the Company will pay the fees of such purchaser representative. If the Holder declines to appoint the purchaser representative approved by the Company, the Holder must appoint another purchaser representative and will be solely responsible for the fees of the purchaser representative so appointed.

(e) Sale Expenses. The Holder will bear his, her or its *pro rata* share (on the basis of such Holder's *pro rata* share of the proceeds from the Approved Sale) of the reasonable costs of any Approved Sale (but only if the Approved Sale is actually consummated).

(f) Proxy Granted. For the purpose of enforcing the Holder's obligations pursuant to this Section 5, each Holder hereby grants to the President of the Company, with respect to all of such Holder's shares of capital stock of the Company entitled to vote, an irrevocable proxy (which is coupled with an interest) for the term of this Section 8 to act in such Holder's name, place and stead, as such Holder's true and lawful proxy and attorney-in-fact, to (i) vote such shares of capital stock at any annual, special or other meeting of the stockholders of the Company and at any adjournment thereof or pursuant to any consent in lieu of a meeting, or otherwise, in favor of an Approved Sale and (ii) execute such documents and instruments, and take such other actions, as the Company may deem necessary or advisable to consummate an Approved Sale and to effect the distribution of the net proceeds thereof, all with the full power and authority to do and perform everything proper and necessary or advisable to carry out and execute this proxy and power of attorney to the same extent as such Holder could do if personally present and acting in the premises.

6. Termination of Rights; Legends.

(a) Termination of Certain Provisions upon IPO. Section 2, Section 3, Section 4 and Section 5 shall terminate immediately upon the closing of, and shall not be applicable to, the Company's first firm commitment underwritten public offering of its Common Stock pursuant to a registration statement under the Securities Act (excluding registration statements relating to employee benefit plans or with respect to corporate reorganizations or other transactions under Rule 145 of the Securities Act) in which the gross public offering proceeds to the Company are not less than twenty-five million dollars ($25,000,000).

(b) Required Certificate Legends. Each certificate representing Acquired Shares shall bear on its face the following legend so long as Section 2, Section 3, Section 4 and Section 5 remain in effect:

> The shares of Stock represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or under the securities laws of any state or any other jurisdiction, and may not be offered for sale, sold or otherwise transferred except pursuant to an effective registration statement under the Securities Act and applicable state securities laws, or pursuant to an exemption from registration thereunder, the availability of which is to be established to the satisfaction of the corporation.
>
> The shares of stock represented by this certificate are subject to certain restrictions on transfer and to certain agreements relating to the voting and disposition of such shares pursuant to the terms of a Performance Share Award Agreement between the issuer of such shares and the initial holder of such shares. A copy of such restrictions and agreements will be furnished by the issuer to the record holder of this certificate without charge upon written request to the issuer at its principal place of business or registered office.

7. Market Stand Off.

Each Holder agrees that the Company (or a representative of the underwriters) may, in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, require that such Holder not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to, any shares of Common Stock or other securities of the Company held by such Holder, for a period of time specified by the underwriter(s) (not to exceed one hundred eighty (180) days) following the effective date of the registration statement of the Company filed under the Securities Act. Each such Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company and/or the underwriter(s) that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenants, the Company may impose stop-transfer instructions with respect to each such Holder's Common Stock or other securities of the Company until the end of such period.

8. Not an Employment or Service Contract.

This Agreement is not an employment or service contract. Nothing in this Agreement shall be deemed to create any obligation of the Recipient to continue in the employ or service of the Company (or an Affiliate) or any obligation of the Company (or an Affiliate) to continue the Recipient's employment or engagement.

9. Withholding Obligations.

The Company may require the Recipient to pay to the Company (or the Company's Subsidiary if the Recipient is an employee of a Subsidiary of the Company), an amount the Company deems appropriate to satisfy its (or its Subsidiary's) current or future obligation to withhold federal, state or local income or other taxes that the Recipient incurs as a result of the Award. With respect to any required tax withholding, the Recipient may (a) direct the Company to withhold from the shares of Common Stock to be issued to the Recipient under this Agreement shares to satisfy such withholding, which determination will be based on the shares' Fair Market Value at the time such determination is made; (b) deliver to the Company shares of Common Stock sufficient to satisfy such withholding, based on the shares' Fair Market Value at the time such determination is made; or (c) deliver cash to the Company sufficient to satisfy such withholding obligations. If the Recipient desires to elect to use the stock withholding option described in subparagraph (a), the Recipient must make the election at the time and in the manner the Company prescribes. The Company, in its discretion, may deny the Recipient's request to satisfy tax withholding using a method described under subparagraph (a) or (b). In the event the Company determines that the aggregate Fair Market Value of the shares of Common Stock withheld as payment of any tax withholding is insufficient to discharge its tax withholding obligation, then the Recipient must pay to the Company, in cash, the amount of that deficiency immediately upon the Company's request.

10. Section 83(b) Election.

In the event Recipient determines to make an election under Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code") (an "83(b) Election") (a form of which is attached hereto as Exhibit A), the Recipient hereby represents that he understands (a) the contents and requirements of the 83(b) Election, (b) the application of Section 83(b) of the Code to the receipt of the Performance Shares by the Recipient pursuant to this Agreement, (c) the nature of the election to be made by the Recipient under Section 83(b) of the Code, (d) the effect and requirements of the 83(b) Election under relevant state and local tax laws, (e) that the 83(b) Election must be filed with the Internal Revenue Service within thirty (30) days following the Grant Date, and (vi) that the Recipient must submit a copy of such election to the Company.

11. Notices.

Any notices provided for in this Agreement or the Plan shall be given in writing and shall be deemed effectively given upon receipt or, in the case of notices delivered by the Company to any Holder, five (5) days after deposit in the United States mail, postage prepaid, addressed to such Holder at the last address provided to the Company.

12. Governing Plan Document.

The Performance Shares are subject to all of the provisions of the Plan and are further subject to all interpretations, amendments, rules and regulations that may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan shall control.

By signing the Grant Notice or otherwise accepting the Performance Shares, the Recipient agrees to be bound by terms of the Agreement and the Plan.

EXHIBIT A

October __, 2021

Certified Mail
Return Receipt Requested

Department of the Treasury
Internal Revenue Service Center
Austin, TX 73301-0002

Re: § 83(b) Election

Dear Sir or Madam:

Enclosed please find a signed election under § 83(b) of the Internal Revenue Code in connection with my receipt of shares of restricted stock in ASP Isotopes Inc.

Sincerely,

Paul Mann

Enclosure

October __, 2021

By Hand Delivery

ASP Isotopes Inc.
[ADDRESS]

Re: § 83(b) Election

Enclosed please find a copy of the election I have filed pursuant to § 83(b) of the Internal Revenue Code. This copy is being furnished to you in accordance with Treasury Regulation § 1.83-2(d).

Sincerely,

Paul Mann

Enclosure

ELECTION UNDER SECTION 83(b)
OF THE INTERNAL REVENUE CODE OF 1986

This statement is made under Section 83(b) of the Internal Revenue Code of 1986, as amended, pursuant to Section 1.83-2 of the regulations.

1. The taxpayer who performed the services is:

Name:	Paul Mann
Address:	________________________________
	________________________________
Social Security No.:	________________________________
Taxable Year:	2021

2. The property with respect to which the election is made is __________ shares of the voting common stock of ASP Isotope Inc., a Delaware corporation (the

"Company").

3. The property was transferred to the undersigned on October __, 2021.

4. The property is subject to forfeiture conditions pursuant to which the Company has the right to acquire the property without compensation to the taxpayer if the Company fails to meet certain performance conditions set forth in the Award Agreement. The property may not be sold, assigned, transferred, pledged or otherwise encumbered until the forfeiture conditions lapse.

5. The fair market value of such property at the time of transfer (determined without regard to any restriction other than a restriction which by its terms will never lapse) is $**[_____]**

6. For the property transferred, the undersigned paid no purchase price.

7. The amount to include in gross income is $**[_____]**

8. A copy of this statement was furnished to the Company for whom taxpayer rendered the services underlying the transfer of such property.

9. This statement is executed on October __, 2021.

______________________________	______________________________
Signature of Taxpayer's Spouse (if any)	Signature of Taxpayer

This election must be filed within 30 days after the date of transfer with the Internal Revenue Service Center with which taxpayer files his or her federal income tax returns. This filing should be made by registered or certified mail, return receipt requested. Taxpayer must retain a copy for his or her records.

AMENDMENT TO PERFORMANCE SHARE AWARD GRANT NOTICE

ORIGINALLY DATED OCTOBER 5, 2021

The section titled "**General**" in the Vesting Conditions stated in Attachment A of the PSU award grant notice will be replaced with the following:

General

The number of Performance Shares that may become vested and nonforfeitable will range from zero to 1,500,000 depending on the Adjusted Share Price on the Measurement date and other factors, as described below.

If on the Measurement Date, the Adjusted Share Price:

(a) is less than $0.25, then all Performance Shares covered by this award will be immediately forfeited for no consideration;

(b) equals or exceeds $0.50, then the Recipient will vest in 20% of the Performance Shares on the Measurement Date;

(c) equals or exceeds $0.75, then the Recipient will vest in 40% of the Performance Shares on the Measurement Date;

(d) equals or exceeds $1.00, then the Recipient will vest in 60% of the Performance Shares on the Measurement Date;

(e) equals or exceeds $1.25, then the Recipient will vest in 80% of the Performance Shares on the Measurement Date; and

(f) equals or exceeds $1.50, then the Recipient will vest in 100% of the Performance Shares on the Measurement Date;

provided, however, that if the Adjusted Share Price exceeds any of the above-mentioned prices for 90 consecutive trading days before the Measurement Date, then the Recipient will immediately vest the appropriate number of Performance Shares. For avoidance of doubt, termination of the Recipient's Continuous Service for any reason shall not result in the forfeiture of any Performance Shares covered by this Award.

This Amendment has been duly executed by the parties as of the first date written above

Accepted and agreed:

ASP ISOTOPES INC

By:	/s/ Robert Ainscow
Date:	10/07/2021
Print Name:	Robert Ainscow
Title:	V-P.

RECIPIENT

By:	/s/ Paul Mann
Date:	10/07/2021
Print Name:	Paul Mann
Address:	1108 SE STRATHMORE DRIVE PORT SAINT LUCIE, FLORIDA 34952

Exhibit 10.5

DIRECTOR AGREEMENT

This DIRECTOR AGREEMENT (the "**Agreement**") is dated [●] (the "**Effective Date**") by and between ASP Isotopes Inc., a Delaware corporation (the "**Company**"), and [●], an individual resident in [●] (the "**Director**").

WHEREAS, the Company appointed the Director effective as of the Effective Date and desires to enter into an agreement with the Director with respect to such appointment; and

WHEREAS, the Director is willing to accept such appointment and to serve the Company on the terms set forth herein and in accordance with the provisions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Position. The Company has caused the Director to be appointed as a member of the Company's Board of Directors (the "**Board**") as of the Effective Date, and the Director hereby agrees to serve the Company in such position upon the terms and conditions hereinafter set forth.

2. Duties. During the Directorship Term (as defined herein), the Director shall perform such duties and responsibilities as are customarily performed by a director, and shall have all responsibilities of a director imposed by Delaware or other applicable law, the Company's Certificate of Incorporation and Bylaws, each as may be amended, including:

- using best efforts to attend scheduled meetings of the Board;
- serving on committees of the Board as reasonably requested by the Board;
- participating as a full voting member of the Board in setting overall objectives, approving plans and programs of operation, formulating general policies, offering advice and counsel, and reviewing management performance; and
- representing the shareholders and the interests of the Company as a fiduciary.

3. Compensation.

There will be two components of compensation – a Fee and a Stock Award. The Fee and the Stock Award represent complete payment for all services by the Director.

(a) Fee. The Company shall pay the Director a fee for services hereunder of Sixty Thousand Dollars ($60,000) per annum (the "**Board Compensation**"). A lump sum initial payment of Board Compensation (the "**Initial Payment**") will be made twelve months after the Effective Date on October 13th, 2022 (the "**Initial Payment Date**"), provided the Director continues to serve through such date. Following the Initial Payment, Board Compensation will be paid in arrears in equal quarterly installments of Fifteen Thousand Dollars ($15,000) (the "**Quarterly Payments**"). Quarterly Payments shall be due on the last business day of each December, March, June and September in the Directorship Term hereof (the "**Payment Dates**"). The Board Compensation shall be paid either in readily available funds or fully paid, validly issued and non-assessable common stock of the Company (the "**Common Stock**"), at the sole option of the Director, to be exercised by written notice to the Company on or prior to the Payment Date, failing which the Board Compensation shall be paid in cash. In the event that a Quarterly Payment is to be remitted in Common Stock, the number of shares shall be determined by dividing the Initial Payment or the Quarterly Payment by either (i) the fair market value per share of Common Stock, as determined in good faith by the Board, or (ii) the closing sale price of the Common Stock on the trading day immediately preceding the applicable Payment Date, as reported by the principal trading market for the Common Stock. During the first year, should the Directorship terminate early for "*good reason*", ("good reason" being defined as i) death, ii) disability or serious extended physical or mental illness, iii) resignation on mutually acceptable good terms for personal reasons), the Director will be eligible for a pro-rata amount of the Initial Payment. If the Directorship terminates early for any other reason, the Director will not be entitled to any Board Compensation.

(b) Common Stock Award. The Director shall be granted Common Stock (the "**Common Stock Award**") with a value of One Hundred Thousand Dollars ($100,000) annually. The first Common Stock Award will be made on the Initial Payment Date and subsequent Common Stock Awards will be made annually thereafter for the duration of the Directorship Term. The number of shares granted in the Common Stock Award shall be determined by dividing $100,000 by either (i) the fair market value per share of Common Stock, as determined in good faith by the Board, or (ii) the closing sale price of the Common Stock on the trading day immediately preceding the applicable Payment Date, as reported by the principal trading market for the Common Stock.

(c) Independent Contractor. The Director's legal status during the Directorship Term shall be that of an independent contractor and not, for any purpose, that of an employee or agent with authority to bind the Company in any respect. All payments and other consideration made or provided to the Director under this Section 3 shall be made or provided without withholding or deduction of any kind, and the Director shall assume sole responsibility for discharging all tax or other obligations associated therewith.

(d) Expense Reimbursements. During the Directorship Term, the Company shall reimburse the Director for all reasonable out-of-pocket expenses incurred by the Director in attending any in-person meetings, provided that the Director complies with the generally applicable policies, practices and procedures of the Company for submission of expense reports, receipts or similar documentation of such expenses. Any reimbursements for any single item of expense in excess of $1,500 or for aggregate expenses during any thirty-day period in excess of $3,000 must be approved in advance by the Company.

4. Directorship Term. The "**Directorship Term**," as used in this Agreement, shall mean the period commencing on the Effective Date and terminating on the earlier of (a) the date of the annual stockholders meeting that occurs after October 26, 2024 (the date of such annual stockholder's meeting, the "**Term Date**") or (b) the first to occur of (i) the death of the Director; (ii) the termination of the Director from his membership on the Board by the mutual agreement of the Company and the Director; (iii) the removal of the Director from the Board by the stockholders of the Company; (iv) the resignation by the Director from the Board; or (v) the date Director ceases for any other reason to be a member of the Board. In the event that the Director is re-elected at any annual stockholders meeting, then the Term Date shall be extended to the first annual stockholders meeting occurring after such re-election.

5. Director's Representation and Acknowledgment. The Director represents to the Company that his execution and performance of this Agreement shall not be in violation of any agreement or obligation (whether or not written) that he may have with or to any person or entity, including without limitation, any prior or current employer. The Director hereby acknowledges and agrees that this Agreement (and any other agreement or obligation referred to herein) shall be an obligation solely of the Company, and the Director shall have no recourse whatsoever against any stockholder of the Company or any of their respective affiliates with regard to this Agreement.

6. Director Covenants.

(a) Unauthorized Disclosure. The Director agrees and understands that in the Director's position with the Company, the Director will be exposed to and receive information relating to the confidential affairs of the Company, including, but not limited to, research programs and results, data, scientific concepts, inventions and technical information (collectively, "**Company IP**"), business and marketing plans, strategies, customer information, other information concerning the Company's research and development activities, products, promotions, development, financing, expansion plans, business policies and practices, and other forms of information considered by the Company to be confidential and in the nature of trade secrets. The Director agrees that during the Directorship Term and thereafter, the Director will keep such information confidential and will not disclose such information, either directly or indirectly, to any third person or entity without the prior written consent of the Company; provided, however, that (i) the Director shall have no such obligation to the extent such information is or becomes publicly known or generally known in the Company's industry other than as a result of the Director's breach of his obligations hereunder and (ii) the Director may, after giving prior notice to the Company to the extent practicable under the circumstances, disclose such information to the extent required by applicable laws or governmental regulations or judicial or regulatory process. This confidentiality covenant has no temporal, geographical or territorial restriction. Upon termination of the Directorship Term, the Director will promptly return to the Company and/or destroy at the Company's direction all property, keys, notes, memoranda, writings, lists, files, reports, customer lists, correspondence, tapes, disks, cards, surveys, maps, logs, machines, technical data, other product or document, and any summary or compilation of the foregoing, in whatever form, including, without limitation, in electronic form, which has been produced by, received by or otherwise submitted to the Director in the course or otherwise as a result of the Director's position with the Company during or prior to the Directorship Term, provided that the Company shall retain such materials and make them available to the Director if requested by him in connection with any litigation against the Director under circumstances in which (i) the Director demonstrates to the reasonable satisfaction of the Company that the materials are useful to his defense in the litigation and (ii) the confidentiality of the materials is preserved to the reasonable satisfaction of the Company.

(b) Non-Solicitation. During the Directorship Term and for a period of three (3) years thereafter, the Director shall not interfere with the Company's relationship with, or endeavor to entice away from the Company, any person who, on the date of the termination of the Directorship Term and/or at any time during the one year period prior to the termination of the Directorship Term, was an employee, contractor, service provider, customer, or vendor of the Company or otherwise had a material business relationship with the Company.

(c) No Conflict. Director will not engage in any activity that creates an actual or perceived conflict of interest with the Company, regardless of whether such activity is prohibited by Company's conflict of interest guidelines or this Agreement, and Director agrees to immediately notify the Board before engaging in any activity that could reasonably be assumed to create a potential conflict of interest with Company. Director shall not engage in any activity that is in direct competition with the Company or serve in any capacity (including, but not limited to, as an employee, consultant, advisor or director) in any company or entity that competes directly or indirectly with the Company without the approval of the disinterested members of the Board. Nothing in this Section 6(c) shall prohibit the Director from being (i) a stockholder in a mutual fund or a diversified investment company or (ii) a passive owner of any class of securities of a corporation, which are either private or publicly traded, so long as the Director has no active participation in the business of such corporation or (iii) serving as an employee, consultant, director, advisor or board member of any other company that does not engage in any activity that is in direct competition with the Company.

(d) Remedies. The Director agrees that any breach of the terms of this Section 6 would result in irreparable injury and damage to the Company for which the Company would have no adequate remedy at law; the Director therefore also agrees that in the event of said breach or any threat of breach, the Company shall be entitled to an immediate injunction and restraining order to prevent such breach and/or threatened breach and/or continued breach by the Director and/or any and all entities acting for and/or with the Director, without having to prove damages or paying a bond, in addition to any other remedies to which the Company may be entitled at law or in equity. The terms of this paragraph shall not prevent the Company from pursuing any other available remedies for any breach or threatened breach hereof, including, but not limited to, the recovery of damages from the Director. The Director acknowledges that the Company would not have entered into this Agreement had the Director not agreed to the provisions of this Section 6.

(e) During the Directorship Term, and at all times thereafter, Director shall cooperate with the Company, at the Company's sole cost and expense (not including legal fees and expenses that Director may incur by retaining independent counsel), with respect to matters about which Director has knowledge, including, without limitation (i) matters involving any review, audit or investigation by the Company and (ii) any pending or threatened claim, demand, action, cause of action, suit, litigation, or administrative or arbitral proceeding, hearing or review, including, without limitation, any request from a regulatory or similar agency, involving the Company.

(f) The provisions of this Section 6 shall survive any termination of the Directorship Term, and the existence of any claim or cause of action by the Director against the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by the Company of the covenants and agreements of this Section 6.

7. Work Product. In the event that the Director participates in any of the Company's research and development activities ("**Company Practice**"), or pursues research and development activities that are premised on, or extensions of, in whole or in part, research or development activities carried on by the Company ("**Derivative Practice**"), then the Company shall own all right, title and interest relating to all inventions, improvements, discoveries, methods, developments, software, and works of authorship, whether patentable or not, which are created, made, conceived or reduced to practice by the Director or jointly with others and are either materially derivative from Company Practice or Derivative Practice or involved Director's use of Company IP (collectively, "**Developments**"). The Director agrees to make full and prompt disclosure to the Company of all Developments and provide all Developments and all materials and concepts relating to Developments to the Company. Director hereby assigns to the Company or its designee all of the Director's right, title and interest in and to any and all Developments. The Director agrees to cooperate fully with the Company, both during and after the term of this Agreement, with respect to the procurement, maintenance and enforcement of intellectual property rights (both in the United States and foreign countries) relating to any Developments. The Director shall sign all documents which may be necessary or desirable in order to protect the Company's rights in and to any Developments, and the Director hereby irrevocably designates and appoints each officer of the Company as the Director's agent and attorney-in-fact to execute any such documents on the Director's behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Developments. Notwithstanding anything to the contrary above, this Section 7 does not apply to an invention for which no equipment, supplies, facility of the Company or Company IP was used, unless the invention relates to the business of the Company or to the Company's actual or demonstrably anticipated research or development, or the invention results from any work performed by the Director for the Company.

8. Indemnification; Insurance. Simultaneous with the execution of this Director Agreement, the Company and the Director will execute an Indemnification Agreement providing for the Company to indemnify the Director for his activities as a member of the Board or any committee of the Board to the fullest extent permitted under the laws of the State of Delaware.

9. Notices. Every notice relating to this Agreement shall be in writing and shall be given by personal delivery or by email with a read receipt; to:

If to the Company:

Attn: Chairman
ASP Isotopes Inc.

433 Plaza Real, Suite 275
Boca Raton, FL. 33432
Email: pmann@aspisotopes.com

If to the Director at the address set forth below the Director's signature hereto.

Either of the parties hereto may change their address for purposes of notice hereunder by giving notice in writing to such other party pursuant to this Section 9.

10. Binding Effect/Assignment. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, personal representatives, estates, successors (including, without limitation, by way of merger) and assigns. Notwithstanding the provisions of the immediately preceding sentence, neither the Director nor the Company shall assign all or any portion of this Agreement without the prior written consent of the other party.

11. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to the principles of conflict of laws. All actions and proceedings arising out of or relating to this Agreement shall be heard and determined in any court in Delaware and the parties hereto hereby consent to the jurisdiction of such courts in any such action or proceeding; provided, however, that neither party shall commence any such action or proceeding unless prior thereto the parties have in good faith attempted to resolve the claim, dispute or cause of action which is the subject of such action or proceeding through mediation by an independent third party.

12. Modifications. Neither this Agreement nor any provision hereof may be modified, altered, amended or waived except by an instrument in writing duly signed by the party to be charged.

13 Counterparts. This Agreement may be executed in two counterparts, each of which shall be deemed to be an original but both of which together shall constitute one and the same instrument.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the parties hereto have executed this Director Agreement on and as of the day and year first above written.

ASP ISOTOPES, INC.

____
Paul Mann
Chief Executive Officer

DIRECTOR

____
[Name]

Address:
____
____
____

Email:
____

[Signature Page to Director Agreement]

Exhibit 10.6

EXECUTIVE EMPLOYMENT AGREEMENT

This EXECUTIVE EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 4th day of October, 2021 by and between PDS-Photonica Holdings (Guernsey) Ltd., a Guernsey corporation headquartered at Anson Court, La Route des Camps, St. Martin, Guernsey, GY4 6AD ("Company") and Paul Mann, an individual ("Executive"). The Company is a wholly owned subsidiary of ASP Isotopes Inc, a Delaware corporation headquartered at 433 Plaza Real, Suite 275, Boca Raton, Florida. 33432 ("Parent"). As used herein, the "Effective Date" of this Agreement shall mean the date as written above and signed below.

W I T N E S S E T H:

WHEREAS, the Executive desires to be employed by the Company as its Chief Executive Officer and its Chief Financial Officer and the Company wishes to employ the Executive in such capacities, in each case, commencing on and as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing and their respective covenants and agreements contained in this document, the Company and the Executive hereby agree as follows:

1. Employment and Duties. The Company agrees to employ and the Executive agrees to serve as the Company's Chief Executive Officer and Chief Financial Officer. In this capacity the Executive shall have such duties, authorities and responsibilities commensurate with the duties, authorities and responsibilities customary to these positions and such other duties and responsibilities as the Company's and the Parent's Boards of Directors ("Board") may from time to time assign to the Executive. The parties expect the Executive to voluntarily resign one of these positions at some point in the future when a qualified replacement is appointed by the Board. At that time, Executive's title and duties and responsibilities hereunder will automatically revert to those of his then-continuing position.

The Executive shall devote the majority of his time, efforts and services to the business and affairs of the Company, its Parent, and their respective subsidiaries. Nothing in this Section 1 shall prohibit the Executive from: (A) serving as a director or member of any other board, committee thereof of any other entity or organization; (B) delivering lectures, fulfilling speaking engagements, and any writing or publication relating to his area of expertise; (C) serving as a director or trustee of any governmental, charitable or educational organization; (D) engaging in additional activities in connection with personal investments and community affairs, including, without limitation, professional or charitable or similar organization committees, boards, memberships or similar associations or affiliations, or (E) performing consulting and advisory activities, *provided*, *however*, such activities are not in competition with the business and affairs of the Parent or would tend to cast executive of Parent in a negative light in the reasonable judgment of the Board.

At any time, and at the Executive's sole discretion, the Executive retains the right to become an employee of the Parent under an agreement substantially similar to this Agreement.

2. Term. The term of this Agreement shall commence on the Effective Date and shall continue for a period of three (3) years following the Effective Date and shall be automatically renewed for successive one (1) year periods thereafter unless either party provides the other party with written notice of his or its intention not to renew this Agreement at least three (3) months prior to the expiration of the initial term or any renewal term of this Agreement. "Employment Period" shall mean the initial three (3)-year term plus one (1)-year renewals, if any.

3. Place of Employment. The Executive's services shall be performed at such location or locations as the Executive shall determine, in his sole discretion. The Executive's services shall be performed principally at his personal residence, subject to any required business travel.

4. Base Salary and Board Fees. The Company agrees to pay the Executive a base salary ('Base Salary") of $240,000 per annum for the first six (6) months and $480,000 per annum for the remainder of the Employment Period for the position(s) of either Chief Executive Officer or Chief Financial Officer or both positions. It is anticipated that at some point in the future the Executive will drop one role and continue with the other. The Base Salary will not be adjusted if the Executive holds both positions or just a single position. Annual adjustments after the first year of the Employment Period shall be determined by the Board; *provided*, *however*, that the Base Salary may not be decreased. The Base Salary shall be paid in periodic installments in accordance with the Company's regular payroll practices. Executive shall, subject to policies and procedures of the Parent's Board of Directors, be eligible to additional fees for service on the Board.

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5. Incentive Compensation and Bonuses.

(a) Annual Bonus: For each fiscal year during the term of employment, the Executive shall be eligible to receive a bonus in the target amount of 100% of annual salary (the "Annual Bonus"), with the amount of such bonus determined from time to time by the Board in its discretion.The Annual Bonus shall be paid by the Company to the Executive promptly after determination that the relevant targets, if any, have been met, it being understood that the attainment of any financial targets associated with any bonus shall not be determined until following the completion of the Parent's annual audit and public announcement of such results and shall be paid promptly following the Parent's announcement of earnings. In the event that the Compensation Committee is unable to act or if there shall be no such Compensation Committee, then all references herein to the Compensation Committee (except in the proviso to this sentence) shall be deemed to be references to the Board. Upon his termination from employment, the Executive shall be entitled to receive a pro-rated Annual Bonus calculated based on his final day of employment, regardless of whether he is employed by the Company through the conclusion of the fiscal quarter or year, as the case may be, on which the Annual Bonus is based. Annual Bonus's will be paid in a mixture of Cash and Common Stock, the ratio of which will be determined by the Compensation Committee. The number of shares granted in the Common Stock portion of the Annual Bonus shall be determined by dividing the value of the Common Stock portion of the Annual Bonus by either (i) the fair market value per share of Common Stock, as determined in good faith by the Board, or (ii) the closing sale price of the Common Stock on the trading day immediately preceding the applicable Payment Date, as reported by the principal trading market for the Common Stock.

(b) Milestone Based Bonuses: The Executive will also be entitled to milestone-based bonuses which will be paid in shares of common stock. These will be driven by the achievement of revenue milestones which will be defined as the trailing three-month average revenues achieved by the Parent. For the purpose of this Agreement revenues will follow the definition of revenues as defined by US GAAP and will exclude any one-off sales, lump-sum contracts, sale of equipment and revenues related to M&A. At the achievement of $4.167 million in average monthly revenues for the trailing three months the Executive will be awarded a $1 million bonus. At the achievement of $8.33 million in average monthly revenues for the trailing three months the Executive will be awarded a $1 million bonus. At the achievement of $12.5 million in average monthly revenues for the trailing three months the Executive will be awarded a $1 million bonus. At the achievement of $16.67 million in average monthly revenues for the trailing three months the Executive will be awarded a $1 million bonus. These milestone-based bonuses will be paid within 30 days of the achievement and will not alter of effect the Annual Bonus described in Section 5(a). The number of shares granted in the Milestone Based Bonus shall be determined by dividing $1 million by either (i) the fair market value per share of Common Stock, as determined in good faith by the Board, or (ii) the closing sale price of the Common Stock on the trading day immediately preceding the applicable Payment Date, as reported by the principal trading market for the Common Stock.

(c) Equity Awards and Incentive Compensation: During the term of employment, the Executive shall be eligible to participate in any equity-based incentive compensation plan or program adopted by either the Parent or the Company (such awards under such plan or program, the "Share Awards") as the Compensation Committee or Board may from time to time determine. Share Awards shall be subject to applicable plan terms and conditions. And any additional terms and conditions as determined by the Compensation Committee or the Board.

6. Severance Compensation:

Upon termination of employment for any reason other than the Executive's voluntary resignation pursuant to Section 10(e), the Executive shall receive his Accrued Benefits (as defined in Section 10(e)) and will also be entitled to: (A) continuation of the Executive's Base Salary from the date immediately following the termination date until the end of the then-applicable Employment Period, payable according to Section 4; and (B) all Share Awards earned and vested prior to termination. With respect to any Share Awards held by the Executive as of his death, Disability, termination without Cause, or resignation for Good Reason, that are not vested and exercisable as of such date, the Parent and/or the Company shall fully accelerate the vesting and exercisability of such Share Awards, so that all such Share Awards shall be fully vested and exercisable as of the Executive's termination, such options (as well as any Share Awards that previously became vested and exercisable) to remain exercisable, notwithstanding anything in any other agreement governing such options, until the earlier of (X) a period of one (1) year after the Executive's termination or (Y) the original term of the option, if such Share Awards is an option.

The Executive may continue coverage with respect to the Parent's group health plans as permitted by the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") for himself and each of his "Qualified Beneficiaries" as defined by COBRA ("COBRA Coverage"). Upon the Executive's termination of employment for any reason other than Executive's voluntary resignation pursuant to Section 10(e), the Parent shall reimburse the amount of any COBRA premium paid for COBRA Coverage timely elected by and for the Executive and any Qualified Beneficiary of the Executive, and not otherwise reimbursed, during the period that ends on the earliest of (x) the date the Executive or the Qualified Beneficiary, as the case may be, ceases to be eligible for COBRA Coverage, (y) the last day of the consecutive eighteen (18) month period following the date of the Executive's termination of employment and (z) the date the Executive or the Qualified Beneficiary, as the case may be, is covered by another group health plan. To reimburse any COBRA premium payment under this paragraph, the Parent must receive documentation of the COBRA premium payment within ninety (90) days of its payment.

7. Expenses. The Executive shall be entitled to prompt reimbursement by the Parent for all reasonable ordinary and necessary travel, entertainment, and other expenses incurred by the Executive while employed (in accordance with the policies and procedures established by the Parent for its senior executive officers) in the performance of his duties and responsibilities under this Agreement; provided, that the Executive shall properly account for such expenses in accordance with Parent policies and procedures.

8. Other Benefits. During the term of this Agreement, the Executive shall be eligible to participate in incentive, stock purchase, savings, retirement (401(k)), and welfare benefit plans, including, without limitation, health, medical, dental, vision, life (including accidental death and dismemberment) and disability insurance plans (collectively, "Benefit Plans"), in substantially the same manner and at substantially the same levels as the Parent makes such opportunities available to the Parent's managerial or salaried executive employees and/or its senior executives.

The Parent shall pay one hundred percent (100%) of the cost for any group medical, vision and/or dental coverage elected by and for the Executive and one hundred (100%) of the additional incremental cost for any group medical, vision and/or dental coverage elected by the Executive for the Executive's family. Notwithstanding the foregoing, to the extent payment of such cost will result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Internal Revenue Code of 1986, as amended (the "Code"), or any statute or regulation of similar effect, then the parties shall negotiate in good faith an alternative arrangement that places the Executive in substantially the same after-tax position.

The Executive shall be entitled to air travel, including travel by business and/or first class, as is reasonable and necessary for the performance of his duties and responsibilities, in accordance with the Parent's policies as approved by the Board.

9. Vacation. During the term of this Agreement, the Executive shall be entitled to accrue, on a pro rata basis, forty (40) paid vacation days per year. Vacation shall be taken at such times as are mutually convenient to the Executive and the Parent and no more than ten (10) consecutive days shall be taken at any one time without Parent approval in advance.

10. Termination of Employment:

(a) Death. If the Executive dies during the Employment Period, this Agreement and the Executive's employment with the Company shall automatically terminate and the Company's obligations to the Executive's estate and to the Executive's Qualified Beneficiaries shall be those set forth in Section 6 regarding severance compensation.

(b) Disability. In the event that, during the term of this Agreement the Executive shall be prevented from performing his essential functions hereunder to the full extent required by the Company by reason of Disability (as defined below), this Agreement and the Executive's employment with the Company shall automatically terminate. The Company's obligation to the Executive under such circumstances shall be those set forth in Section 6 regarding severance compensation. For purposes of this Agreement, "Disability" shall mean a physical or mental disability that prevents the performance by the Executive, with or without reasonable accommodation, of his essential functions hereunder for an aggregate of ninety (90) days or longer during any twelve (12) consecutive months. The determination of the Executive's Disability shall be made by an independent physician who is reasonably acceptable to the Company and the Executive (or his representative), be final and binding on the parties hereto and be made taking into account such competent medical evidence as shall be presented to such independent physician by the Executive and/or the Company or by any physician or group of physicians or other competent medical experts employed by the Executive and/or the Company to advise such independent physician.

(c) Cause.

(i) At any time during the Employment Period, the Parent may terminate this Agreement and the Executive's employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean: (a) the willful and continued failure of the Executive to perform substantially his duties and responsibilities for the Company (other than any such failure resulting from the Executive's death, Disability, or approved leave-of-absence) after a written demand by the Board for substantial performance is delivered to the Executive by the Parent, which specifically identifies the manner in which the Board believes that the Executive has not substantially performed his duties and responsibilities, which willful and continued failure is not cured by the Executive within thirty (30) days following his receipt of such written demand; (b) the conviction of, or plea of guilty or *nolo contendere* to, a felony, or (c) fraud, dishonesty or gross misconduct which is materially and demonstratively injurious to the Parent. Termination under clauses (b) or (c) of this Section 10(c)(1) shall not be subject to cure.

(ii) For purposes of this Section 10(c), no act, or failure to act, on the part of the Executive shall be considered "willful" unless done, or omitted to be done, by him in bad faith and without reasonable belief that his action or omission was in, or not opposed to, the best interest of the Parent. Between the time the Executive receives written demand regarding substantial performance, as set forth in subparagraph (1) above, and prior to an actual termination for Cause, the Executive will be entitled to appear (with counsel) before the full Board to present information regarding his views on the Cause event. After such hearing, termination for Cause must be approved by a majority vote of the full Board (other than the Executive). After providing the written demand regarding substantial performance, the Board may suspend the Executive with full pay and benefits until a final determination by the full Board has been made.

(iii) Upon termination of this Agreement for Cause, the Company shall have no further obligations or liability to the Executive or his heirs, administrators or executors with respect to compensation and benefits thereafter, except for the obligation to pay the Executive any Base Salary earned through the date of termination to be paid according to Section 4; any unpaid Annual Bonus to be paid according to Section 5; reimbursement of any and all reasonable expenses paid or incurred by the Executive in connection with and related to the performance of his duties and responsibilities for the Parent and the Company during the period ending on the termination date to be paid according to Section 7; and any accrued but unused vacation time through the termination date in accordance with Parent policy. The Parent shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(d) For Good Reason or a Change of Control or Without Cause.

(i) At any time during the term of this Agreement and subject to the conditions set forth in Section 10(d)(ii) below the Executive may terminate this Agreement and the Executive's employment with the Company for "Good Reason" or for a "Change of Control" (as defined in Section 10(f)). For purposes of this Agreement, "Good Reason" shall mean the occurrence of any of the following events without Executive's consent: (A) the assignment to the Executive of duties that are significantly different from, and/or that result in a substantial diminution of, the duties that he assumed on the Effective Date (including reporting to anyone other than solely and directly to the Board); (B) the assignment to the Executive of a title that is different from and subordinate to the title of, as applicable, either Chief Executive Officer or Chief Financial Officer of the Company; *provided*, *however*, for the absence of doubt following a Change of Control, should the Executive be required to serve in a diminished capacity in a division or unit of another entity (including the acquiring entity), such event shall constitute Good Reason regardless of the title of the Executive in such acquiring company, division or unit; (C) a material reduction in Executive's Base Salary or total annual cash compensation opportunity; or (D) material breach by the Company of this Agreement.

(ii) The Executive shall not be entitled to terminate this Agreement for Good Reason unless and until he shall have delivered written notice to the Parent within ninety (90) days of the date upon which the facts giving rise to Good Reason occurred of his intention to terminate this Agreement and his employment with the Company for Good Reason, which notice specifies in reasonable detail the circumstances claimed to provide the basis for such termination for Good Reason, and the Parent shall not have eliminated the circumstances constituting Good Reason within thirty (30) days of its receipt from the Executive of such written notice. In the event the Executive elects to terminate this Agreement for Good Reason in accordance with Section 10(d)(i), such election must be made within the twenty-four (24) months following the initial existence of one or more of the conditions constituting Good Reason as provided in Section 10(d)(i). In the event the Executive elects to terminate this Agreement for a Change in Control in accordance with Section 10(d)(i), such election must be made within one hundred eighty (180) days of the occurrence of the Change of Control.

(iii) In the event that the Executive terminates this Agreement and his employment with the Company for Good Reason or for a Change of Control or the Parent terminates this Agreement and the Executive's employment with the Company without Cause, the Company shall pay or provide to the Executive (or, following his death, to the Executive's heirs, administrators or executors) the severance compensation set forth in Section 6 above. The Company shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(iv) The Executive shall not be required to mitigate the amount of any payment provided for in this Section 10(d) by seeking other employment or otherwise, nor shall the amount of any payment provided for in this Section 10(d) be reduced by any compensation earned by the Executive as the result of employment by another employer or business or by profits earned by the Executive from any other source at any time before and after the termination date. The Company's obligation to make any payment pursuant to, and otherwise to perform its obligations under, this Agreement shall not be affected by any offset, counterclaim or other right that the Parent may have against the Executive for any reason.

(e) Without "Good Reason" by the Executive. At any time during the term of this Agreement, the Executive shall be entitled to terminate this Agreement and the Executive's employment with the Company without Good Reason and other than for a Change of Control by providing prior written notice of at least thirty (30) days to the Parent. Upon termination by the Executive of this Agreement or the Executive's employment with the Company without Good Reason and other than for a Change of Control, the Company shall have no further obligations or liability to the Executive or his heirs, administrators or executors with respect to compensation and benefits thereafter, except for the obligation to pay the Executive the following (collectively, the "Accrued Benefits"): (i) any Base Salary earned through the date of termination to be paid according to Section 4; (ii) any earned but unpaid Annual Bonus to be paid according to Section 5(a); (iii) Executive's pro-rated Annual Bous for the year of termination to be paid according to Section 5(a); (iv) reimbursement of any and all reasonable expenses paid or incurred by the Executive in connection with and related to the performance of his duties and responsibilities for the Company during the period ending on the termination date to be paid according to Section 7; (v) any accrued but unused vacation time through the termination date in accordance with Company policy; (vi) any accrued and vested benefits under the Benefit Plans; and (vii) all Share Awards earned and vested as of the date or termination. The Company shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(f) Change of Control. For purposes of this Agreement, "Change of Control" shall mean the occurrence of any one or more of the following: (i) the accumulation (if over time, in any consecutive twelve (12) month period), whether directly, indirectly, beneficially or of record, by any individual, entity or group (within the meaning of Section 12(d)(3) or 13(d)(2) of the Securities Exchange Act of 1934, as amended) of fifty percent (50%) or more of the shares of the outstanding Common Stock of the Parent, whether by merger, consolidation, sale or other transfer of shares of Common Stock (other than a merger or consolidation where the stockholders of the Parent prior to the merger or consolidation are the holders of a majority of the voting securities of the entity that survives such merger or consolidation), (ii) a sale of all or substantially all of the assets of the Parent or (iii) during any period of twelve (12) consecutive months, the individuals who, at the beginning of such period, constitute the Board, and any new director whose election by the Board or nomination for election by the Parent's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the twelve (12) month period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the Board; provided that the following acquisitions shall not constitute a Change of Control for the purposes of this Agreement: any acquisition of Common Stock or securities convertible into Common Stock by any employee benefit plan (or related trust) sponsored by or maintained by the Parent.

(g) Notice of Termination. Any termination of the Executive's employment by the Company or by the Executive (other than termination by reason of the Executive's death) shall be communicated by written Notice of Termination to the other party of this Agreement. For purposes of this Agreement, a "Notice of Termination" shall mean a written notice which shall indicate the specific termination provision in this Agreement relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated, provided, however, failure to provide timely notification shall not affect the employment status of the Executive.

11. Confidential Information.

(a) Disclosure of Confidential Information. The Executive recognizes, acknowledges and agrees that he has had and will continue to have access to secret and confidential information regarding the Parent, the Company, their respective subsidiaries and their respective businesses (collectively, the "Parent Group"), including but not limited to, the Parent Group's products, methods, formulas, software code, patents, sources of supply, customer dealings, data, know-how, trade secrets and business plans ("Confidential Information"), provided such information is not in or does not hereafter become part of the public domain, or become known to others through no fault of the

Executive. The Executive acknowledges that such information is of great value to the Parent Group, is the sole property of the Parent Group, and has been and will be acquired by him in confidence. In consideration of the obligations undertaken by the Parent herein, the Executive will not, at any time, during or after his employment hereunder, reveal, divulge or make known to any person, any information acquired by the Executive during the course of his employment, which is treated as confidential by the Parent Group, and not otherwise in the public domain. The provisions of this Section 11 shall survive the termination of the Executive's employment hereunder. The Executive affirms that he does not possess and will not rely upon the protected trade secrets or confidential or proprietary information of any prior employer(s) in providing services to the Parent Group.

(b) Return of Confidential Information. In the event that the Executive's employment with the Parent terminates for any reason, the Executive shall deliver forthwith to the Parent any and all originals and copies, including those in electronic or digital formats, of Confidential Information; *provided*, *however*, the Executive shall be entitled to retain (i) papers and other materials of a personal nature, including, but not limited to, photographs, correspondence, personal diaries, calendars and rolodexes, personal files and phone books, (ii) information showing his compensation or relating to reimbursement of expenses, (iii) information that he reasonably believes may be needed for tax purposes and (iv) copies of plans, programs and agreements relating to his employment, or termination thereof, with the Parent. The covenants and agreements in this Section 11 shall exclude excludes information (A) which is in the public domain through no unauthorized act or omission of Executive or (B) which becomes available to Executive on a non-confidential basis from a source other than a member of the Parent Group without breach of such source's confidentiality or non-disclosure obligations to the Parent Group.

12. Non-Competition and Non-Solicitation.

(a) The Executive agrees and acknowledges that the Confidential Information that the Executive has already received and will receive is valuable to the Parent Group and that its protection and maintenance constitutes a legitimate business interest of the Parent Group, to be protected by the non-competition restrictions set forth herein. The Executive agrees and acknowledges that the non-competition restrictions set forth herein are reasonable and necessary and do not impose undue hardship or burdens on the Executive. The Executive also acknowledges that the Parent Group's Business (as defined in Section 12(b)(1) below) is conducted worldwide (the "Territory"), and that the Territory, scope of prohibited competition, and time duration set forth in the non-competition restrictions set forth below are reasonable and necessary to maintain the value of the Confidential Information of, and to protect the goodwill and other legitimate business interests of, any member of the Parent Group and/or such member's clients or customers. The provisions of this Section 12 shall survive the termination of the Executive's employment hereunder for the time periods specified below.

(b) The Executive hereby agrees and covenants that he shall not without the prior written consent of the Board, directly or indirectly, in any capacity whatsoever, including, without limitation, as an employee, employer, consultant, principal, partner, shareholder, officer, director or any other individual or representative capacity (other than (i) as a holder of less than two (2%) percent of the outstanding securities of a company whose shares are traded on any national securities exchange or (ii) as a limited partner, passive minority interest holder in a venture capital fund, private equity fund or similar investment entity which holds or may hold an equity or debt position in portfolio companies that are competitive with the Parent; *provided*, *however*, that the Executive shall be precluded from serving as an operating partner, general partner, manager or governing board designee with respect to such portfolio companies), or whether on the Executive's own behalf or on behalf of any other person or entity or otherwise howsoever, during the Term and thereafter to the extent described below, within the Territory:

(i) Engage, own, manage, operate, control, be employed by, consult for, participate in, or be connected in any manner with the ownership, management, operation or control of any business in competition with the Business of the Parent, as defined in the next sentence. For purposes hereof, the Parent Group's "Business" shall mean research, development, techniques and technology in any manner involving or related to the separation of isotopes;

(ii) Recruit, solicit or hire, or attempt to recruit, solicit or hire, any employee, or independent contractor of the Parent Group to leave the employment (or independent contractor relationship) thereof, whether or not any such employee or independent contractor is party to an employment agreement, for the purpose of competing with the Business of the Parent Group;

(iii) Attempt in any manner to solicit or accept from any customer of the Parent Group, with whom Executive had significant contact during Executive's employment by the Parent Group (whether under this Agreement or otherwise), business of the kind or competitive with the business done by the Parent Group with such customer or to persuade or attempt to persuade any such customer to cease to do business or to reduce the amount of business which such customer has customarily done or might do with the Parent Group, or if any such customer elects to move its business to a person other than the Parent Group, provide any services of the kind or competitive with the business of the Parent Group for such customer, or have any discussions regarding any such service with such customer, on behalf of such other person for the purpose of competing with the Business of the Parent Group; or

(iv) Interfere with any relationship, contractual or otherwise, between the Parent Group and any other party, including, without limitation, any supplier, distributor, co-venturer or joint venturer of the Parent Group, for the purpose of soliciting such other party to discontinue or reduce its business with the Parent Group for the purpose of competing with the Business of the Parent Group.

With respect to the activities described in Paragraphs (i), (ii), (iii) and (iv) above, the restrictions of this Section 12(b) shall continue during the term of this Agreement and for a period of one (1) year thereafter.

13. Section 409A.

The provisions of this Agreement are intended to comply with or are exempt from Section 409A of the Code ("Section 409A") and the related Treasury Regulations and shall be construed in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A. The Parent and the Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions necessary, appropriate or desirable to avoid imposition of any additional tax under Section 409A or income recognition prior to actual payment to the Executive under this Agreement.

It is intended that any expense reimbursement made under this Agreement shall be exempt from Section 409A. Notwithstanding the foregoing, if any expense reimbursement made under this Agreement shall be determined to be "deferred compensation" subject to Section 409A ("Deferred Compensation"), then (a) the right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit, (b) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year (provided that this clause (b) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect) and (c) such payments shall be made on or before the last day of the taxable year following the taxable year in which the expense was incurred.

With respect to the time of payments of any amount under this Agreement that is Deferred Compensation, references in the Agreement to "termination of employment" and substantially similar phrases, including a termination of employment due to the Executive's Disability, shall mean "Separation from Service" from the Parent within the meaning of Section 409A (determined after applying the presumptions set forth in Treasury Regulation Section 1.409A-1(h)(1)). Each installment payable hereunder shall constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b), including Treasury Regulation Section 1.409A-2(b)(2)(iii). Each payment that is made within the terms of the "short-term deferral" rule set forth in Treasury Regulation Section 1.409A-1(b)(4) is intended to meet the "short-term deferral" rule. Each other payment is intended to be a payment upon an involuntary termination from service and payable pursuant to Treasury Regulation Section 1.409A-1(b)(9)(iii), et. seq., to the maximum extent permitted by that regulation, with any amount that is not exempt from Code Section 409A being subject to Code Section 409A.

Notwithstanding anything to the contrary in this Agreement, if the Executive is a "specified employee" within the meaning of Section 409A at the time of the Executive's termination, then only that portion of the severance and benefits payable to the Executive pursuant to this Agreement, if any, and any other severance payments or separation benefits which may be considered Deferred Compensation (together, the "Deferred Separation Benefits"), which (when considered together) do not exceed the Section 409A Limit (as defined herein) may be made within the first six (6) months following the Executive's termination of employment in accordance with the payment schedule applicable to each payment or benefit. Any portion of the Deferred Separation Benefits in excess of the Section 409A Limit otherwise due to the Executive on or within the six (6) month period following the Executive's termination will accrue during such six (6) month period and will become payable in one lump sum cash payment on the date six (6) months and one (1) day following the date of the Executive's termination of employment. All subsequent Deferred Separation Benefits, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if the Executive dies following termination but prior to the six (6) month anniversary of the Executive's termination date, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of the Executive's death and all other Deferred Separation Benefits will be payable in accordance with the payment schedule applicable to each payment or benefit.

For purposes of this Agreement, "Section 409A Limit" shall mean a sum equal to (x) the amounts payable within the terms of the "short-term deferral" rule under Treasury Regulation Section 1.409A-1(b)(4) plus (y) the amount payable as "separation pay due to involuntary separation from service" under Treasury Regulation Section 1.409A-1(b)(9)(iii) equal to the lesser of two (2) times: (i) the Executive's annualized compensation from the Parent based upon his annual rate of pay during the Executive's taxable year preceding his taxable year when his employment terminated, as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1); and (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which the Executive's employment is terminated.

14. Miscellaneous.

(a) Neither the Executive nor the Company may assign or delegate any of their rights or duties under this Agreement without the express written consent of the other; provided, however, that the Company shall have the right to delegate its obligation of payment of all sums due to the Executive hereunder, provided that such delegation shall not relieve the Company of any of its obligations hereunder.

(b) During the term of this Agreement, the Company (i) shall indemnify and hold harmless the Executive and his heirs and representatives to the maximum extent provided by the laws of Guernsey and by the Company's bylaws and (ii) shall cover the Executive under the Parent's directors' and officers' liability insurance on the same basis as it covers other senior executive officers and directors of the Company.

(c) This Agreement constitutes and embodies the full and complete understanding and agreement of the parties with respect to the Executive's employment by the Company, supersedes all prior understandings and agreements, whether oral or written, between the Executive and the Parent or the Company, and shall not be amended, modified or changed except by an instrument in writing executed by the party to be charged. If any provision of this Agreement, or the application thereof, shall for any reason and to any extent be invalid or unenforceable, then the remainder of this Agreement and the application of such provision to other persons or circumstances shall be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that shall achieve, to the extent possible, the economic, business and other purposes of the void or unenforceable provision. No waiver by either party of any provision or condition to be performed shall be deemed a waiver of similar or dissimilar provisions or conditions at the same time or any prior or subsequent time.

(d) This Agreement shall inure to the benefit of, be binding upon and enforceable against, the parties hereto and their respective successors, heirs, beneficiaries and permitted assigns.

(e) The headings contained in this Agreement are for convenience of reference only and shall not affect in any way the meaning or interpretation of this Agreement.

(f) All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been duly given when personally delivered, sent by registered or certified mail, return receipt requested, postage prepaid, or by reputable national overnight delivery service (e.g., Federal Express) for overnight delivery to the party at the address set forth in the preamble to this Agreement, or to such other address as either party may hereafter give the other party notice of in accordance with the provisions hereof. Notices shall be deemed given on the sooner of the date actually received or the third business day after deposited in the mail or one business day after deposited with an overnight delivery service for overnight delivery.

(g) This Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware, and each of the parties hereto irrevocably consents to the jurisdiction and venue of the federal and state courts located in the State of Delaware, for any disputes arising out of this Agreement, or the Executive's employment with the Company. The prevailing party in any dispute arising out of this Agreement shall be entitled to his or its reasonable attorney's fees and costs,

(h) This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one of the same instrument. The parties hereto have executed this Agreement as of the date set forth above.

(i) The Executive represents and warrants to the Company, that he has the full power and authority to enter into this Agreement and to perform his obligations hereunder and that the execution and delivery of this Agreement and the performance of his obligations hereunder will not conflict with any agreement to which the Executive is a party.

(j) The Company represents and warrants to the Executive that it has the full power and authority to enter into this Agreement and to perform its obligations hereunder and that the execution and delivery of this Agreement and the performance of its obligations hereunder will not conflict with any agreement to which the Company is a party.

[Signature page follows immediately]

IN WITNESS WHEREOF, the Executive and the Company have caused this Executive Employment Agreement to be executed as of the date first above written.

PDS-PHOTONICA HOLDINGS (GUERNSEY) LTD.,

a Guernsey Corporation

Signed: /s/ Robert Ainscow
By: Robert Ainscow
Its: Board Member, Vice President

EXECUTIVE

Signed: /s/ Paul Mann
Name: Paul Mann

Exhibit 10.7

EXECUTIVE EMPLOYMENT AGREEMENT

This EXECUTIVE EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 19th day of January, 2022 by and between ASP Isotopes (Guernsey) Ltd., a Guernsey corporation headquartered at Anson Court, La Route des Camps, St. Martin, Guernsey, GY4 6AD ("Company") and Hendrik Strydom, an individual ("Executive"). The Company is a wholly owned subsidiary of ASP Isotopes Inc, a Delaware corporation headquartered at 433 Plaza Real, Suite 275, Boca Raton, Florida. 33432 ("Parent"). As used herein, the "Effective Date" of this Agreement shall mean the date as written above and signed below.

W I T N E S S E T H:

WHEREAS, the Executive desires to be employed by the Company as Executive Vice President and Chief Technology Officer and the Company wishes to employ the Executive in such capacities, in each case, commencing on and as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing and their respective covenants and agreements contained in this document, the Company and the Executive hereby agree as follows:

1. Employment and Duties. The Company agrees to employ and the Executive agrees to serve as the Company's Executive Vice President and Chief Science and Technology Officer. In this capacity the Executive shall have such duties, authorities and responsibilities commensurate with the duties, authorities and responsibilities customary to these positions and such other duties and responsibilities as the Company's Chief Executive Officer and the Company's and the Parent's Boards of Directors ("Board") may from time to time assign to the Executive. The Executive will report to the Chief Executive Officer.

The Executive shall devote the appropriate time, efforts and services to the business and affairs of the Company, its Parent, and their respective subsidiaries. Nothing in this Section 1 shall prohibit the Executive from: (A) serving as a director or member of any other board, committee thereof of any other entity or organization; (B) delivering lectures, fulfilling speaking engagements, and any writing or publication relating to his area of expertise; (C) serving as a director or trustee of any governmental, charitable or educational organization; (D) engaging in additional activities in connection with personal investments and community affairs, including, without limitation, professional or charitable or similar organization committees, boards, memberships or similar associations or affiliations, or (E) performing consulting and advisory activities, *provided*, *however*, such activities are not in competition with the business and affairs of the Parent or would tend to cast executive of Parent in a negative light in the reasonable judgment of the Board, and (F) serving as CEO and member of Klydon, tasked with executing the Turnkey Contract.

At any time, and at the Company's or Parent's sole discretion, the Company or the Parent retains the right to assign the Executive to either the Parent or another subsidiary under an agreement substantially similar to this Agreement.

2. Term. The term of this Agreement shall commence on the Effective Date and shall continue for a period of one (1) year following the Effective Date and shall be automatically renewed for successive one (1) year periods thereafter unless either party provides the other party with written notice of his or its intention not to renew this Agreement at least three (3) months prior to the expiration of the initial term or any renewal term of this Agreement. "Employment Period" shall mean the initial one (1)-year term plus one (1)-year renewals, if any.

3. Place of Employment. The Executive's services shall be performed at such location or locations as the Executive and the Chief Executive Officer shall determine, by mutual agreement. The Executive acknowledges that a significant amount of travel may be required.

4. Base Salary and Board Fees. The Company agrees to pay the Executive an initial base salary ('Base Salary") of $240,000 per annum, which shall increase to $480,000 per annum upon the achievement of the Production Milestone. "Production Milestone" shall mean the Company (or its wholly-owned subsidiary) has produced 250 grams of Mo-100 commercial product. Annual adjustments after the first year of the Employment Period shall be determined by the Board; *provided*, *however*, that the Base Salary may not be decreased. The Base Salary shall be paid in periodic installments in accordance with the Company's regular payroll practices. Executive shall, subject to policies and procedures of the Parent's Board of Directors, be eligible to additional fees for service on the Board.

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5. Incentive Compensation and Bonuses.

(a) Annual Bonus: For each fiscal year during the term of employment, the Executive shall be eligible to receive a bonus in the target amount of 100% of annual salary (the "Annual Bonus"), with the amount of such bonus determined from time to time by the Board in its discretion. The Annual Bonus shall be paid by the Company to the Executive promptly after determination that the relevant targets, if any, have been met, it being understood that the attainment of any financial targets associated with any bonus shall not be determined until following the completion of the Parent's annual audit and public announcement of such results and shall be paid promptly following the Parent's announcement of earnings. In the event that the Compensation Committee is unable to act or if there shall be no such Compensation Committee, then all references herein to the Compensation Committee (except in the proviso to this sentence) shall be deemed to be references to the Board. The Annual Bonus will be paid in a mix of cash and shares of the Company's common stock ("Common Stock"), the ratio of which will be determined by the Compensation Committee. The number of shares granted in the Common Stock portion of the Annual Bonus shall be determined by dividing the value of the Common Stock portion of the Annual Bonus by either (i) the fair market value per share of Common Stock, as reasonably determined in good faith by the Board, or (ii) the average of the closing sale prices of the Common Stock for the ten (10) trading day period ending on the trading day immediately preceding the applicable determination date of the Compensation Committee, as reported by the principal trading market for the Common Stock.

(b) Milestone Based Bonuses: The Executive will also be entitled to milestone-based bonuses which will be paid in shares of Common Stock. These will be driven by the achievement of revenue milestones which will be defined as the trailing three-month average revenues achieved by the Parent. For the purpose of this Agreement revenues will follow the definition of revenues as defined by US GAAP and will exclude any one-off sales, lump-sum contracts, sale of equipment and revenues related to M&A. At the achievement of $4.167 million in average monthly revenues for the trailing three months the Executive will be awarded a $250,000 bonus. At the achievement of $8.33 million in average monthly revenues for the trailing three months the Executive will be awarded a $250,000 bonus. At the achievement of $12.5 million in average monthly revenues for the trailing three months the Executive will be awarded a $250,000 bonus. At the achievement of $16.67 million in average monthly revenues for the trailing three months the Executive will be awarded a $250,000 bonus. These milestone-based bonuses will be paid within 30 days of the achievement and will not alter of effect the Annual Bonus described in Section 5(a). The number of shares granted in the Milestone Based Bonus shall be determined by dividing $250,000 by either (i) the fair market value per share of Common Stock, as reasonably determined in good faith by the Board, or (ii) the average of the closing sale prices of the Common Stock for the ten (10) trading day period ending on the trading day immediately preceding the applicable determination date of the Compensation Committee, as reported by the principal trading market for the Common Stock.

(c) Equity Awards and Incentive Compensation: During the term of employment, the Executive shall be eligible to participate in any equity-based incentive compensation plan or program adopted by either the Parent or the Company (such awards under such plan or program, the "Share Awards") as the Compensation Committee or Board may from time to time determine. Share Awards shall be subject to applicable plan terms and conditions. And any additional terms and conditions as determined by the Compensation Committee or the Board.

6. Severance Compensation:

Upon termination of employment for any reason other than the Executive's voluntary resignation pursuant to Section 9(e), the Executive shall receive his Accrued Benefits (as defined in Section 9(e)) and will also be entitled to: (A) the Executive's Base Salary up to the date of termination; and (B) all Share Awards earned and vested prior to termination. With respect to any Share Awards held by the Executive as of his death, Disability, termination without Cause, that are not vested and exercisable as of such date, the Parent and/or the Company shall fully accelerate the vesting and exercisability of such Share Awards, so that all such Share Awards shall be fully vested and exercisable as of the Executive's termination, such options (as well as any Share Awards that previously became vested and exercisable) to remain exercisable, notwithstanding anything in any other agreement governing such options, until the earlier of (X) a period of one (1) year after the Executive's termination or (Y) the original term of the option, if such Share Awards is an option.

The Executive may continue coverage with respect to the Parent's group health plans as permitted by the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") for himself and each of his "Qualified Beneficiaries" as defined by COBRA ("COBRA Coverage"). Upon the Executive's termination of employment for any reason other than Executive's voluntary resignation pursuant to Section 9(e), the Parent shall reimburse the amount of any COBRA premium paid for COBRA Coverage timely elected by and for the Executive and any Qualified Beneficiary of the Executive, and not otherwise reimbursed, during the period that ends on the earliest of (x) the date the Executive or the Qualified Beneficiary, as the case may be, ceases to be eligible for COBRA Coverage, (y) the last day of the consecutive eighteen (18) month period following the date of the Executive's termination of employment and (z) the date the Executive or the Qualified Beneficiary, as the case may be, is covered by another group health plan. To reimburse any COBRA premium payment under this paragraph, the Parent must receive documentation of the COBRA premium payment within ninety (90) days of its payment.

7. Expenses. The Executive shall be entitled to prompt reimbursement by the Parent for all reasonable ordinary and necessary travel, entertainment, and other expenses incurred by the Executive while employed (in accordance with the policies and procedures established by the Parent for its senior executive officers) in the performance of his duties and responsibilities under this Agreement; provided, that the Executive shall properly account for such expenses in accordance with Parent policies and procedures.

8. Other Benefits. During the term of this Agreement, the Executive shall be eligible to participate in incentive, stock purchase, savings, retirement (401(k)), and welfare benefit plans, including, without limitation, health, medical, dental, vision, life (including accidental death and dismemberment) and disability insurance plans (collectively, "Benefit Plans"), in substantially the same manner and at substantially the same levels as the Parent makes such opportunities available to the Parent's managerial or salaried executive employees and/or its senior executives.

The Parent shall pay one hundred percent (100%) of the cost for any group medical, vision and/or dental coverage elected by and for the Executive and one hundred (100%) of the additional incremental cost for any group medical, vision and/or dental coverage elected by the Executive for the Executive's family. Notwithstanding the foregoing, to the extent payment of such cost will result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Internal Revenue Code of 1986, as amended (the "Code"), or any statute or regulation of similar effect, then the parties shall negotiate in good faith an alternative arrangement that places the Executive in substantially the same after-tax position.

The Executive shall be entitled to air travel, as is reasonable and necessary for the performance of his duties and responsibilities, in accordance with the Parent's policies as approved by the Board.

9. Termination of Employment:

(a) Death. If the Executive dies during the Employment Period, this Agreement and the Executive's employment with the Company shall automatically terminate and the Company's obligations to the Executive's estate and to the Executive's Qualified Beneficiaries shall be those set forth in Section 6 regarding severance compensation.

(b) Disability. In the event that, during the term of this Agreement the Executive shall be prevented from performing his essential functions hereunder to the full extent required by the Company by reason of Disability (as defined below), this Agreement and the Executive's employment with the Company shall automatically terminate. The Company's obligation to the Executive under such circumstances shall be those set forth in Section 6 regarding severance compensation. For purposes of this Agreement, "Disability" shall mean a physical or mental disability that prevents the performance by the Executive, with or without reasonable accommodation, of his essential functions hereunder for an aggregate of ninety (90) days or longer during any twelve (12) consecutive months. The determination of the Executive's Disability shall be made by an independent physician who is reasonably acceptable to the Company and the Executive (or his representative), be final and binding on the parties hereto and be made taking into account such competent medical evidence as shall be presented to such independent physician by the Executive and/or the Company or by any physician or group of physicians or other competent medical experts employed by the Executive and/or the Company to advise such independent physician.

(c) Cause.

(i) At any time during the Employment Period, the Parent may terminate this Agreement and the Executive's employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean: (a) the willful and continued failure of the Executive to perform substantially his duties and responsibilities for the Company (other than any such failure resulting from the Executive's death, Disability, or approved leave-of-absence) after a written demand by the Board for substantial performance is delivered to the Executive by the Parent, which specifically identifies the manner in which the Board believes that the Executive has not substantially performed his duties and responsibilities, which willful and continued failure is not cured by the Executive within thirty (30) days following his receipt of such written demand; (b) the conviction of, or plea of guilty or *nolo contendere* to, a felony, or (c) fraud, dishonesty or gross misconduct which is materially and demonstratively injurious to the Parent. Termination under clauses (b) or (c) of this Section 9(c)(1) shall not be subject to cure.

(ii) For purposes of this Section 9(c), no act, or failure to act, on the part of the Executive shall be considered "willful" unless done, or omitted to be done, by him in bad faith and without reasonable belief that his action or omission was in, or not opposed to, the best interest of the Parent. Between the time the Executive receives written demand regarding substantial performance, as set forth in subparagraph (1) above, and prior to an actual termination for Cause, the Executive will be entitled to appear (with counsel) before the full Board to present information regarding his views on the Cause event. After such hearing, termination for Cause must be approved by a majority vote of the full Board (other than the Executive). After providing the written demand regarding substantial performance, the Board may suspend the Executive with full pay and benefits until a final determination by the full Board has been made.

(iii) Upon termination of this Agreement for Cause, the Company shall have no further obligations or liability to the Executive or his heirs, administrators or executors with respect to compensation and benefits thereafter, except for the obligation to pay the Executive any Base Salary earned through the date of termination to be paid according to Section 4; any unpaid Annual Bonus to be paid according to Section 5; reimbursement of any and all reasonable expenses paid or incurred by the Executive in connection with and related to the performance of his duties and responsibilities for the Parent and the Company during the period ending on the termination date to be paid according to Section 7; and any accrued but unused vacation time through the termination date in accordance with Parent policy. The Parent shall deduct, from

all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(d) For Good Reason or a Change of Control or Without Cause.

(i) At any time during the term of this Agreement and subject to the conditions set forth in Section 9(d)(ii) below the Executive may terminate this Agreement and the Executive's employment with the Company for "Good Reason" or for a "Change of Control" (as defined in Section 9(f)). For purposes of this Agreement, "Good Reason" shall mean the occurrence of any of the following events without Executive's consent: (A) the assignment to the Executive of duties that are significantly different from, and/or that result in a substantial diminution of, the duties that he assumed on the Effective Date; (B) the assignment to the Executive of a title that is different from and subordinate to the title of Executive Vice President and Chief Technology Officer; *provided*, *however*, for the absence of doubt following a Change of Control, should the Executive be required to serve in a diminished capacity in a division or unit of another entity (including the acquiring entity), such event shall constitute Good Reason regardless of the title of the Executive in such acquiring company, division or unit; (C) a material reduction in Executive's Base Salary or total annual cash compensation opportunity; or (D) material breach by the Company of this Agreement.

(ii) The Executive shall not be entitled to terminate this Agreement for Good Reason unless and until he shall have delivered written notice to the Parent within ninety (90) days of the date upon which the facts giving rise to Good Reason occurred of his intention to terminate this Agreement and his employment with the Company for Good Reason, which notice specifies in reasonable detail the circumstances claimed to provide the basis for such termination for Good Reason, and the Parent shall not have eliminated the circumstances constituting Good Reason within thirty (30) days of its receipt from the Executive of such written notice. In the event the Executive elects to terminate this Agreement for Good Reason in accordance with Section 9(d)(i), such election must be made within the twenty-four (24) months following the initial existence of one or more of the conditions constituting Good Reason as provided in Section 9(d)(i). In the event the Executive elects to terminate this Agreement for a Change in Control in accordance with Section 9(d)(i), such election must be made within one hundred eighty (180) days of the occurrence of the Change of Control.

(iii) In the event that the Executive terminates this Agreement and his employment with the Company for Good Reason or for a Change of Control or the Parent terminates this Agreement and the Executive's employment with the Company without Cause, the Company shall pay or provide to the Executive (or, following his death, to the Executive's heirs, administrators or executors) the severance compensation set forth in Section 6 above.

The Company shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(iv) The Executive shall not be required to mitigate the amount of any payment provided for in this Section 9(d) by seeking other employment or otherwise, nor shall the amount of any payment provided for in this Section 9(d) be reduced by any compensation earned by the Executive as the result of employment by another employer or business or by profits earned by the Executive from any other source at any time before and after the termination date. The Company's obligation to make any payment pursuant to, and otherwise to perform its obligations under, this Agreement shall not be affected by any offset, counterclaim or other right that the Parent may have against the Executive for any reason.

(e) Without "Good Reason" by the Executive. At any time during the term of this Agreement, the Executive shall be entitled to terminate this Agreement and the Executive's employment with the Company without Good Reason and other than for a Change of Control by providing prior written notice of at least thirty (30) days to the Parent. Upon termination by the Executive of this Agreement or the Executive's employment with the Company without Good Reason and other than for a Change of Control, the Company shall have no further obligations or liability to the Executive or his heirs, administrators or executors with respect to compensation and benefits thereafter, except for the obligation to pay the Executive the following (collectively, the "Accrued Benefits"): (i) any Base Salary earned through the date of termination to be paid according to Section 4; (ii) any earned but unpaid Annual Bonus to be paid according to Section 5(a); (iii) Executive's pro-rated Annual Bous for the year of termination to be paid according to Section 5(a); (iv) reimbursement of any and all reasonable expenses paid or incurred by the Executive in connection with and related to the performance of his duties and responsibilities for the Company during the period ending on the termination date to be paid according to Section 7; (v) any accrued but unused vacation time through the termination date in accordance with Company policy; (vi) any accrued and vested benefits under the Benefit Plans; and (vii) all Share Awards earned and vested as of the date or termination. The Company shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(f) Change of Control. For purposes of this Agreement, "Change of Control" shall mean the occurrence of any one or more of the following: (i) the accumulation (if over time, in any consecutive twelve (12) month period), whether directly, indirectly, beneficially or of record, by any individual, entity or group (within the meaning of Section 12(d)(3) or 13(d)(2) of the Securities Exchange Act of 1934, as amended) of fifty percent (50%) or more of the shares of the outstanding Common Stock of the Parent, whether by merger, consolidation, sale or other transfer of shares of Common Stock (other than a merger or consolidation where the stockholders of the Parent prior to the merger or consolidation are the holders of a majority of the voting securities of the entity that survives such merger or consolidation), (ii) a sale of all or substantially all of the assets of the Parent or (iii) during any period of twelve (12) consecutive months, the individuals who, at the beginning of such period, constitute the Board, and any new director whose election by the Board or nomination for election by the Parent's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the twelve (12) month period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the Board; provided that the following acquisitions shall not constitute a Change of Control for the purposes of this Agreement: any acquisition of Common Stock or securities convertible into Common Stock by any employee benefit plan (or related trust) sponsored by or maintained by the Parent.

(g) Notice of Termination. Any termination of the Executive's employment by the Company or by the Executive (other than termination by reason of the Executive's death) shall be communicated by written Notice of Termination to the other party of this Agreement. For purposes of this Agreement, a "Notice of Termination" shall mean a written notice which shall indicate the specific termination provision in this Agreement relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated, provided, however, failure to provide timely notification shall not affect the employment status of the Executive.

10. Confidential Information.

(a) Disclosure of Confidential Information. The Executive recognizes, acknowledges and agrees that he has had and will continue to have access to secret and confidential information regarding the Parent, the Company, their respective subsidiaries and their respective businesses (collectively, the "Parent Group"), including but not limited to, the Parent Group's products, methods, formulas, software code, patents, sources of supply, customer dealings, data, know-how, trade secrets and business plans ("Confidential Information"), provided such information is not in or does not hereafter become part of the public domain, or become known to others through no fault of the Executive. The Executive acknowledges that such information is of great value to the Parent Group, is the sole property of the Parent Group, and has been and will be acquired by him in confidence. In consideration of the obligations undertaken by the Parent herein, the Executive will not, at any time, during or after his employment hereunder, reveal, divulge or make known to any person, any information acquired by the Executive during the course of his employment, which is treated as confidential by the Parent Group, and not otherwise in the public domain. The provisions of this Section 10 shall survive the termination of the Executive's employment hereunder. The Executive affirms that he does not possess and will not rely upon the protected trade secrets or confidential or proprietary information of any prior employer(s) in providing services to the Parent Group.

(b) Return of Confidential Information. In the event that the Executive's employment with the Parent terminates for any reason, the Executive shall deliver forthwith to the Parent any and all originals and copies, including those in electronic or digital formats, of Confidential Information; *provided*, *however*, the Executive shall be entitled to retain (i) papers and other materials of a personal nature, including, but not limited to, photographs, correspondence, personal diaries, calendars and rolodexes, personal files and phone books, (ii) information showing his compensation or relating to reimbursement of expenses, (iii) information that he reasonably believes may be needed for tax purposes and (iv) copies of plans, programs and agreements relating to his employment, or termination thereof, with the Parent. The covenants and agreements in this Section 10 shall exclude excludes information (A) which is in the public domain through no unauthorized act or omission of Executive or (B) which becomes available to Executive on a non-confidential basis from a source other than a member of the Parent Group without breach of such source's confidentiality or non-disclosure obligations to the Parent Group.

11. Non-Competition and Non-Solicitation.

(a) The Executive agrees and acknowledges that the Confidential Information that the Executive has already received and will receive is valuable to the Parent Group and that its protection and maintenance constitutes a legitimate business interest of the Parent Group, to be protected by the non-competition restrictions set forth herein. The Executive agrees and acknowledges that the non-competition restrictions set forth herein are reasonable and necessary and do not impose undue hardship or burdens on the Executive. The Executive also acknowledges that the Parent Group's Business (as defined in Section 11(b)(1) below) is conducted worldwide (the "Territory"), and that the Territory, scope of prohibited competition, and time duration set forth in the non-competition restrictions set forth below are reasonable and necessary to maintain the value of the Confidential Information of, and to protect the goodwill and other legitimate business interests of, any member of the Parent Group and/or such member's clients or customers. The provisions of this Section 11 shall survive the termination of the Executive's employment hereunder for the time periods specified below.

(b) The Executive hereby agrees and covenants that he shall not without the prior written consent of the Board, directly or indirectly, in any capacity whatsoever, including, without limitation, as an employee, employer, consultant, principal, partner, shareholder, officer, director or any other individual or representative capacity (other than (i) as a holder of less than two (2%) percent of the outstanding securities of a company whose shares are traded on any national securities exchange or (ii) as a limited partner, passive minority interest holder in a venture capital fund, private equity fund or similar investment entity which holds or may hold an equity or debt position in portfolio companies that are competitive with the Parent; *provided*, *however*, that the Executive shall be precluded from serving as an operating partner, general partner, manager or governing board designee with respect to such portfolio companies), or whether on the Executive's own behalf or on behalf of any other person or entity or otherwise howsoever, during the Term and thereafter to the extent described below, within the Territory:

(i) Engage, own, manage, operate, control, be employed by, consult for, participate in, or be connected in any manner with the ownership, management, operation or control of any business in competition with the Business of the Parent, as defined in the next sentence. For purposes hereof, the Parent Group's "Business" shall mean research, development, techniques and technology in any manner involving or related to the separation of isotopes;

(ii) Recruit, solicit or hire, or attempt to recruit, solicit or hire, any employee, or independent contractor of the Parent Group to leave the employment (or independent contractor relationship) thereof, whether or not any such employee or independent contractor is party to an employment agreement, for the purpose of competing with the Business of the Parent Group;

(iii) Attempt in any manner to solicit or accept from any customer of the Parent Group, with whom Executive had significant contact during Executive's employment by the Parent Group (whether under this Agreement or otherwise), business of the kind or competitive with the business done by the Parent Group with such customer or to persuade or attempt to persuade any such customer to cease to do business or to reduce the amount of business which such customer has customarily done or might do with the Parent Group, or if any such customer elects to move its business to a person other than the Parent Group, provide any services of the kind or competitive with the business of the Parent Group for such customer, or have any discussions regarding any such service with such customer, on behalf of such other person for the purpose of competing with the Business of the Parent Group; or

(iv) Interfere with any relationship, contractual or otherwise, between the Parent Group and any other party, including, without limitation, any supplier, distributor, co-venturer or joint venturer of the Parent Group, for the purpose of soliciting such other party to discontinue or reduce its business with the Parent Group for the purpose of competing with the Business of the Parent Group.

With respect to the activities described in Paragraphs (i), (ii), (iii) and (iv) above, the restrictions of this Section 11(b) shall continue during the term of this Agreement and for a period of one (1) year thereafter.

12. Section 409A.

The provisions of this Agreement are intended to comply with or are exempt from Section 409A of the Code ("Section 409A") and the related Treasury Regulations and shall be construed in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A. The Parent and the Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions necessary, appropriate or desirable to avoid imposition of any additional tax under Section 409A or income recognition prior to actual payment to the Executive under this Agreement.

It is intended that any expense reimbursement made under this Agreement shall be exempt from Section 409A. Notwithstanding the foregoing, if any expense reimbursement made under this Agreement shall be determined to be "deferred compensation" subject to Section 409A ("Deferred Compensation"), then (a) the right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit, (b) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year (provided that this clause (b) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect) and (c) such payments shall be made on or before the last day of the taxable year following the taxable year in which the expense was incurred.

With respect to the time of payments of any amount under this Agreement that is Deferred Compensation, references in the Agreement to "termination of employment" and substantially similar phrases, including a termination of employment due to the Executive's Disability, shall mean "Separation from Service" from the Parent within the meaning of Section 409A (determined after applying the presumptions set forth in Treasury Regulation Section 1.409A-1(h)(1)). Each installment payable hereunder shall constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b), including Treasury Regulation Section 1.409A-2(b)(2)(iii). Each payment that is made within the terms of the "short-term deferral" rule set forth in Treasury Regulation Section 1.409A-1(b)(4) is intended to meet the "short-term deferral" rule. Each other payment is intended to be a payment upon an involuntary termination from service and payable pursuant to Treasury Regulation Section 1.409A-1(b)(9)(iii), et. seq., to the maximum extent permitted by that regulation, with any amount that is not exempt from Code Section 409A being subject to Code Section 409A.

Notwithstanding anything to the contrary in this Agreement, if the Executive is a "specified employee" within the meaning of Section 409A at the time of the Executive's termination, then only that portion of the severance and benefits payable to the Executive pursuant to this Agreement, if any, and any other severance payments or separation benefits which may be considered Deferred Compensation (together, the "Deferred Separation Benefits"), which (when considered together) do not exceed the Section 409A Limit (as defined herein) may be made within the first six (6) months following the Executive's termination of employment in accordance with the payment schedule applicable to each payment or benefit. Any portion of the Deferred Separation Benefits in excess of the Section 409A Limit otherwise due to the Executive on or within the six (6) month period following the Executive's termination will accrue during such six (6) month period and will become payable in one lump sum cash payment on

the date six (6) months and one (1) day following the date of the Executive's termination of employment. All subsequent Deferred Separation Benefits, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if the Executive dies following termination but prior to the six (6) month anniversary of the Executive's termination date, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of the Executive's death and all other Deferred Separation Benefits will be payable in accordance with the payment schedule applicable to each payment or benefit.

For purposes of this Agreement, "Section 409A Limit" shall mean a sum equal to (x) the amounts payable within the terms of the "short-term deferral" rule under Treasury Regulation Section 1.409A-1(b)(4) plus (y) the amount payable as "separation pay due to involuntary separation from service" under Treasury Regulation Section 1.409A-1(b)(9)(iii) equal to the lesser of two (2) times: (i) the Executive's annualized compensation from the Parent based upon his annual rate of pay during the Executive's taxable year preceding his taxable year when his employment terminated, as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1); and (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which the Executive's employment is terminated.

13. Miscellaneous.

(a) Neither the Executive nor the Company may assign or delegate any of their rights or duties under this Agreement without the express written consent of the other; provided, however, that the Company shall have the right to delegate its obligation of payment of all sums due to the Executive hereunder, provided that such delegation shall not relieve the Company of any of its obligations hereunder.

(b) During the term of this Agreement, the Company (i) shall indemnify and hold harmless the Executive and his heirs and representatives to the maximum extent provided by the laws of Guernsey and by the Company's bylaws and (ii) shall cover the Executive under the Parent's directors' and officers' liability insurance on the same basis as it covers other senior executive officers and directors of the Company.

(c) This Agreement constitutes and embodies the full and complete understanding and agreement of the parties with respect to the Executive's employment by the Company, supersedes all prior understandings and agreements, whether oral or written, between the Executive and the Parent or the Company, and shall not be amended, modified or changed except by an instrument in writing executed by the party to be charged. If any provision of this Agreement, or the application thereof, shall for any reason and to any extent be invalid or unenforceable, then the remainder of this Agreement and the application of such provision to other persons or circumstances shall be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that shall achieve, to the extent possible, the economic, business and other purposes of the void or unenforceable provision. No waiver by either party of any provision or condition to be performed shall be deemed a waiver of similar or dissimilar provisions or conditions at the same time or any prior or subsequent time.

(d) This Agreement shall inure to the benefit of, be binding upon and enforceable against, the parties hereto and their respective successors, heirs, beneficiaries and permitted assigns.

(e) The headings contained in this Agreement are for convenience of reference only and shall not affect in any way the meaning or interpretation of this Agreement.

(f) All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been duly given when personally delivered, sent by registered or certified mail, return receipt requested, postage prepaid, or by reputable national overnight delivery service (e.g., Federal Express) for overnight delivery to the party at the address set forth in the preamble to this Agreement, or to such other address as either party may hereafter give the other party notice of in accordance with the provisions hereof.

Notices shall be deemed given on the sooner of the date actually received or the third business day after deposited in the mail or one business day after deposited with an overnight delivery service for overnight delivery.

(g) This Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware, and each of the parties hereto irrevocably consents to the jurisdiction and venue of the federal and state courts located in the State of Delaware, for any disputes arising out of this Agreement, or the Executive's employment with the Company. The prevailing party in any dispute arising out of this Agreement shall be entitled to his or its reasonable attorney's fees and costs,

(h) This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one of the same instrument. The parties hereto have executed this Agreement as of the date set forth above.

(i) The Executive represents and warrants to the Company, that he has the full power and authority to enter into this Agreement and to perform his obligations hereunder and that the execution and delivery of this Agreement and the performance of his obligations hereunder will not conflict with any agreement to which the Executive is a party.

(j) The Company represents and warrants to the Executive that it has the full power and authority to enter into this Agreement and to perform its obligations hereunder and that the execution and delivery of this Agreement and the performance of its obligations hereunder will not conflict with any agreement to which the Company is a party.

[Signature page follows immediately]

IN WITNESS WHEREOF, the Executive and the Company have caused this Executive Employment Agreement to be executed as of the date first above written.

ASP ISOTOPES (GUERNSEY) LTD.,

a Guernsey Corporation

Signed: /s/ Paul Mann
By: Paul Mann
Its: Chief Executive Officer

EXECUTIVE

Signed: /s/ Hendrik Strydom
Name: Hendrik Strydom

EXECUTIVE EMPLOYMENT AGREEMENT

This EXECUTIVE EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 4th day of October, 2021 by and between PDS-Photonica Holdings (Guernsey) Ltd., a Guernsey corporation headquartered at Anson Court, La Route des Camps, St. Martin, Guernsey, GY4 6AD ("Company") and Robert Ainscow, an individual ("Executive"). The Company is a wholly owned subsidiary of ASP Isotopes Inc, a Delaware corporation headquartered at 433 Plaza Real, Suite 275, Boca Raton, Florida. 33432 ("Parent"). As used herein, the "Effective Date" of this Agreement shall mean the date as written above and signed below.

W I T N E S S E T H:

WHEREAS, the Executive desires to be employed by the Company as Vice President and Head of Business Development and the Company wishes to employ the Executive in such capacities, in each case, commencing on and as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing and their respective covenants and agreements contained in this document, the Company and the Executive hereby agree as follows:

1. Employment and Duties. The Company agrees to employ and the Executive agrees to serve as the Company's Vice President and Head of Business Development. In this capacity the Executive shall have such duties, authorities and responsibilities commensurate with the duties, authorities and responsibilities customary to these positions and such other duties and responsibilities as the Company's Chief Operating Officer and the Company's and the Parent's Boards of Directors ("Board") may from time to time assign to the Executive. The Executive will report to the Chief Operating Officer.

The Executive shall devote the majority of his time, efforts and services to the business and affairs of the Company, its Parent, and their respective subsidiaries. By 'majority of time" this Agreement assumes the Executive will commit greater than 30 hours per week to the Company. Nothing in this Section 1 shall prohibit the Executive from: (A) serving as a director or member of any other board, committee thereof of any other entity or organization; (B) delivering lectures, fulfilling speaking engagements, and any writing or publication relating to his area of expertise; (C) serving as a director or trustee of any governmental, charitable or educational organization; (D) engaging in additional activities in connection with personal investments and community affairs, including, without limitation, professional or charitable or similar organization committees, boards, memberships or similar associations or affiliations, or (E) performing consulting and advisory activities, *provided*, *however*, such activities are not in competition with the business and affairs of the Parent or would tend to cast executive of Parent in a negative light in the reasonable judgment of the Board.

At any time, and at the Company's or Parent's sole discretion, the Company or the Parent retains the right to assign the Executive to either the Parent or another subsidiary under an agreement substantially similar to this Agreement.

2. Term. The term of this Agreement shall commence on the Effective Date and shall continue for a period of one (1) year following the Effective Date and shall be automatically renewed for successive one (1) year periods thereafter unless either party provides the other party with written notice of his or its intention not to renew this Agreement at least three (3) months prior to the expiration of the initial term or any renewal term of this Agreement. "Employment Period" shall mean the initial one (1)-year term plus one (1)-year renewals, if any.

3. Place of Employment. The Executive's services shall be performed at such location or locations as the Executive and the Chief Operating Officer shall determine, by mutual agreement. The Executive acknowledges that a significant amount of travel may be required.

4. Base Salary and Board Fees. The Company agrees to pay the Executive a base salary ("Base Salary") of $120,000 per annum for the first period and $240,000 per annum for the remainder of the Employment Period for the position of Vice President and Head of Business Development. The step up in Base Salary from $120,000 per annum to $240,000 per annum will occur when the Company has produced 250 grams of commercial product. Annual adjustments after the first year of the Employment Period shall be determined by the Board; *provided*, *however*, that the Base Salary may not be decreased. The Base Salary shall be paid in periodic installments in accordance with the Company's regular payroll practices. Executive shall, subject to policies and procedures of the Parent's Board of Directors, be eligible to additional fees for service on the Board.

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5. Incentive Compensation and Bonuses.

(a) Annual Bonus: For each fiscal year during the term of employment, the Executive shall be eligible to receive a bonus in the target amount of 40% of annual salary (the "Annual Bonus"), with the amount of such bonus determined from time to time by the Board in its discretion.The Annual Bonus shall be paid by the Company to the Executive promptly after determination that the relevant targets, if any, have been met, it being understood that the attainment of any financial targets associated with any bonus shall not be determined until following the completion of the Parent's annual audit and public announcement of such results and shall be paid promptly following the Parent's announcement of earnings. In the event that the Compensation Committee is unable to act or if there shall be no such Compensation Committee, then all references herein to the Compensation Committee (except in the proviso to this sentence) shall be deemed to be references to the Board. Annual Bonus's will be paid in a mixture of Cash and Common Stock, the ratio of which will be determined by the Compensation Committee. The number of shares granted in the Common Stock portion of the Annual Bonus shall be determined by dividing the value of the Common Stock portion of the Annual Bonus by either (i) the fair market value per share of Common Stock, as determined in good faith by the Board, or (ii) the closing sale price of the Common Stock on the trading day immediately preceding the applicable Payment Date, as reported by the principal trading market for the Common Stock.

(b) Milestone Based Bonuses: The Executive will also be entitled to milestone-based bonuses which will be paid in shares of common stock. These will be driven by the achievement of revenue milestones which will be defined as the trailing three-month average revenues achieved by the Parent. For the purpose of this Agreement revenues will follow the definition of revenues as defined by US GAAP and will exclude any one-off sales, lump-sum contracts, sale of equipment and revenues related to M&A. At the achievement of $4.167 million in average monthly revenues for the trailing three months the Executive will be awarded a $200,000 bonus. At the achievement of $8.33 million in average monthly revenues for the trailing three months the Executive will be awarded a $200,000 bonus. At the achievement of $12.5 million in average monthly revenues for the trailing three months the Executive will be awarded a $200,000 bonus. At the achievement of $16.67 million in average monthly revenues for the trailing three months the Executive will be awarded a $200,000 bonus. These milestone-based bonuses will be paid within 30 days of the achievement and will not alter of effect the Annual Bonus described in Section 5(a). The number of shares granted in the Milestone Based Bonus shall be determined by dividing $200,000 by either (i) the fair market value per share of Common Stock, as determined in good faith by the Board, or (ii) the closing sale price of the Common Stock on the trading day immediately preceding the applicable Payment Date, as reported by the principal trading market for the Common Stock.

(c) Equity Awards and Incentive Compensation: During the term of employment, the Executive shall be eligible to participate in any equity-based incentive compensation plan or program adopted by either the Parent or the Company (such awards under such plan or program, the "Share Awards") as the Compensation Committee or Board may from time to time determine. Share Awards shall be subject to applicable plan terms and conditions. And any additional terms and conditions as determined by the Compensation Committee or the Board. On the Effective Date, the Board of Directors of the Company shall award and reserve for issuance 10-year options to purchase 150,000 shares of common stock which shall vest (provided Employee is still employed by the Company) in thirty-six equal monthly installments beginning on the one-month anniversary of the Effective Date.

6. Severance Compensation:

Upon termination of employment for any reason other than the Executive's voluntary resignation pursuant to Section 10(e), the Executive shall receive his Accrued Benefits (as defined in Section 10(e)) and will also be entitled to: (A) the Executive's Base Salary up to the date of termination; and (B) all Share Awards earned and vested prior to termination. With respect to any Share Awards held by the Executive as of his death, Disability, termination without Cause, that are not vested and exercisable as of such date, the Parent and/or the Company shall fully accelerate the vesting and exercisability of such Share Awards, so that all such Share Awards shall be fully vested and exercisable as of the Executive's termination, such options (as well as any Share Awards that previously became vested and exercisable) to remain exercisable, notwithstanding anything in any other agreement governing such options, until the earlier of (X) a period of one (1) year after the Executive's termination or (Y) the original term of the option, if such Share Awards is an option.

The Executive may continue coverage with respect to the Parent's group health plans as permitted by the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") for himself and each of his "Qualified Beneficiaries" as defined by COBRA ("COBRA Coverage"). Upon the Executive's termination of employment for any reason other than Executive's voluntary resignation pursuant to Section 10(e), the Parent shall reimburse the amount of any COBRA premium paid for COBRA Coverage timely elected by and for the Executive and any Qualified Beneficiary of the Executive, and not otherwise reimbursed, during the period that ends on the earliest of (x) the date the Executive or the Qualified Beneficiary, as the case may be, ceases to be eligible for COBRA Coverage, (y) the last day of the consecutive eighteen (18) month period following the date of the Executive's termination of employment and (z) the date the Executive or the Qualified Beneficiary, as the case may be, is covered by another group health plan. To reimburse any COBRA premium payment under this paragraph, the Parent must receive documentation of the COBRA premium payment within ninety (90) days of its payment.

7. Expenses. The Executive shall be entitled to prompt reimbursement by the Parent for all reasonable ordinary and necessary travel, entertainment, and other expenses incurred by the Executive while employed (in accordance with the policies and procedures established by the Parent for its senior executive officers) in the performance of his duties and responsibilities under this Agreement; provided, that the Executive shall properly account for such expenses in accordance with Parent policies and procedures.

8. Other Benefits. During the term of this Agreement, the Executive shall be eligible to participate in incentive, stock purchase, savings, retirement (401(k)), and welfare benefit plans, including, without limitation, health, medical, dental, vision, life (including accidental death and dismemberment) and disability insurance plans (collectively, "Benefit Plans"), in substantially the same manner and at substantially the same levels as the Parent makes such opportunities available to the Parent's managerial or salaried executive employees and/or its senior executives.

The Parent shall pay one hundred percent (100%) of the cost for any group medical, vision and/or dental coverage elected by and for the Executive and one hundred (100%) of the additional incremental cost for any group medical, vision and/or dental coverage elected by the Executive for the Executive's family. Notwithstanding the foregoing, to the extent payment of such cost will result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Internal Revenue Code of 1986, as amended (the "Code"), or any statute or regulation of similar effect, then the parties shall negotiate in good faith an alternative arrangement that places the Executive in substantially the same after-tax position.

The Executive shall be entitled to air travel, as is reasonable and necessary for the performance of his duties and responsibilities, in accordance with the Parent's policies as approved by the Board.

9. Vacation. During the term of this Agreement, the Executive shall be entitled to accrue, on a pro rata basis, thirty (30) paid vacation days per year. Vacation shall be taken at such times as are mutually convenient to the Executive and the Parent and no more than ten (10) consecutive days shall be taken at any one time without Parent approval in advance.

10. Termination of Employment:

(a) Death. If the Executive dies during the Employment Period, this Agreement and the Executive's employment with the Company shall automatically terminate and the Company's obligations to the Executive's estate and to the Executive's Qualified Beneficiaries shall be those set forth in Section 6 regarding severance compensation.

(b) Disability. In the event that, during the term of this Agreement the Executive shall be prevented from performing his essential functions hereunder to the full extent required by the Company by reason of Disability (as defined below), this Agreement and the Executive's employment with the Company shall automatically terminate. The Company's obligation to the Executive under such circumstances shall be those set forth in Section 6 regarding severance compensation. For purposes of this Agreement, "Disability" shall mean a physical or mental disability that prevents the performance by the Executive, with or without reasonable accommodation, of his essential functions hereunder for an aggregate of ninety (90) days or longer during any twelve (12) consecutive months. The determination of the Executive's Disability shall be made by an independent physician who is reasonably acceptable to the Company and the Executive (or his representative), be final and binding on the parties hereto and be made taking into account such competent medical evidence as shall be presented to such independent physician by the Executive and/or the Company or by any physician or group of physicians or other competent medical experts employed by the Executive and/or the Company to advise such independent physician.

(c) Cause.

(i) At any time during the Employment Period, the Parent may terminate this Agreement and the Executive's employment hereunder for Cause. For purposes of this Agreement, "Cause" shall mean: (a) the willful and continued failure of the Executive to perform substantially his duties and responsibilities for the Company (other than any such failure resulting from the Executive's death, Disability, or approved leave-of-absence) after a written demand by the Board for substantial performance is delivered to the Executive by the Parent, which specifically identifies the manner in which the Board believes that the Executive has not substantially performed his duties and responsibilities, which willful and continued failure is not cured by the Executive within thirty (30) days following his receipt of such written demand; (b) the conviction of, or plea of guilty or *nolo contendere* to, a felony, or (c) fraud, dishonesty or gross misconduct which is materially and demonstratively injurious to the Parent. Termination under clauses (b) or (c) of this Section 10(c)(1) shall not be subject to cure.

(ii) For purposes of this Section 10(c), no act, or failure to act, on the part of the Executive shall be considered "willful" unless done, or omitted to be done, by him in bad faith and without reasonable belief that his action or omission was in, or not opposed to, the best interest of the Parent. Between the time the Executive receives written demand regarding substantial performance, as set forth in subparagraph (1) above, and prior to an actual termination for Cause, the Executive will be entitled to appear (with counsel) before the full Board to present information regarding his views on the Cause event. After such hearing, termination for Cause must be approved by a majority vote of the full Board (other than the Executive). After providing the written demand regarding substantial performance, the Board may suspend the Executive with full pay and benefits until a final determination by the full Board has been made.

(iii) Upon termination of this Agreement for Cause, the Company shall have no further obligations or liability to the Executive or his heirs, administrators or executors with respect to compensation and benefits thereafter, except for the obligation to pay the Executive any Base Salary earned through the date of termination to be paid according to Section 4; any unpaid Annual Bonus to be paid according to Section 5; reimbursement of any and all reasonable expenses paid or incurred by the Executive in connection with and related to the performance of his duties and responsibilities for the Parent and the Company during the period ending on the termination date to be paid according to Section 7; and any accrued but unused vacation time through the termination date in accordance with Parent policy. The Parent shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(d) For Good Reason or a Change of Control or Without Cause.

(i) At any time during the term of this Agreement and subject to the conditions set forth in Section 10(d)(ii) below the Executive may terminate this Agreement and the Executive's employment with the Company for "Good Reason" or for a "Change of Control" (as defined in Section 10(f)). For purposes of this Agreement, "Good Reason" shall mean the occurrence of any of the following events without Executive's consent: (A) the assignment to the Executive of duties that are significantly different from, and/or that result in a substantial diminution of, the duties that he assumed on the Effective Date; (B) the assignment to the Executive of a title that is different from and subordinate to the title of Vice President and Head of Business Development; *provided*, *however*, for the absence of doubt following a Change of Control, should the Executive be required to serve in a diminished capacity in a division or unit of another entity (including the acquiring entity), such event shall constitute Good Reason regardless of the title of the Executive in such acquiring company, division or unit; (C) a material reduction in Executive's Base Salary or total annual cash compensation opportunity; or (D) material breach by the Company of this Agreement.

(ii) The Executive shall not be entitled to terminate this Agreement for Good Reason unless and until he shall have delivered written notice to the Parent within ninety (90) days of the date upon which the facts giving rise to Good Reason occurred of his intention to terminate this Agreement and his employment with the Company for Good Reason, which notice specifies in reasonable detail the circumstances claimed to provide the basis for such termination for Good Reason, and the Parent shall not have eliminated the circumstances constituting Good Reason within thirty (30) days of its receipt from the Executive of such written notice. In the event the Executive elects to terminate this Agreement for Good Reason in accordance with Section 10(d)(i), such election must be made within the twenty-four (24) months following the initial existence of one or more of the conditions constituting Good Reason as provided in Section 10(d)(i). In the event the Executive elects to terminate this Agreement for a Change in Control in accordance with Section 10(d)(i), such election must be made within one hundred eighty (180) days of the occurrence of the Change of Control.

(iii) In the event that the Executive terminates this Agreement and his employment with the Company for Good Reason or for a Change of Control or the Parent terminates this Agreement and the Executive's employment with the Company without Cause, the Company shall pay or provide to the Executive (or, following his death, to the Executive's heirs, administrators or executors) the severance compensation set forth in Section 6 above. The Company shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(iv) The Executive shall not be required to mitigate the amount of any payment provided for in this Section 10(d) by seeking other employment or otherwise, nor shall the amount of any payment provided for in this Section 10(d) be reduced by any compensation earned by the Executive as the result of employment by another employer or business or by profits earned by the Executive from any other source at any time before and after the termination date. The Company's obligation to make any payment pursuant to, and otherwise to perform its obligations under, this Agreement shall not be affected by any offset, counterclaim or other right that the Parent may have against the Executive for any reason.

(e) Without "Good Reason" by the Executive. At any time during the term of this Agreement, the Executive shall be entitled to terminate this Agreement and the Executive's employment with the Company without Good Reason and other than for a Change of Control by providing prior written notice of at least thirty (30) days to the Parent. Upon termination by the Executive of this Agreement or the Executive's employment with the Company without Good Reason and other than for a Change of Control, the Company shall have no further obligations or liability to the Executive or his heirs, administrators or executors with respect to compensation and benefits thereafter, except for the obligation to pay the Executive the following (collectively, the "Accrued Benefits"): (i) any Base Salary earned through the date of termination to be paid according to Section 4; (ii) any earned but unpaid Annual Bonus to be paid according to Section 5(a); (iii) Executive's pro-rated Annual Bous for the year of termination to be paid according to Section 5(a); (iv) reimbursement of any and all reasonable expenses paid or incurred by the Executive in connection with and related to the performance of his duties and responsibilities for the Company during the period ending on the termination date to be paid according to Section 7; (v) any accrued but unused vacation time through the termination date in accordance with Company policy; (vi) any accrued and vested benefits under the Benefit Plans; and (vii) all Share Awards earned and vested as of the date or termination. The Company shall deduct, from all payments made hereunder, all applicable taxes, including income tax, FICA and FUTA, and other appropriate deductions.

(f) Change of Control. For purposes of this Agreement, "Change of Control" shall mean the occurrence of any one or more of the following: (i) the accumulation (if over time, in any consecutive twelve (12) month period), whether directly, indirectly, beneficially or of record, by any individual, entity or group (within the meaning of Section 12(d)(3) or 13(d)(2) of the Securities Exchange Act of 1934, as amended) of fifty percent (50%) or more of the shares of the outstanding Common Stock of the Parent, whether by merger, consolidation, sale or other transfer of shares of Common Stock (other than a merger or consolidation where the stockholders of the Parent prior to the merger or consolidation are the holders of a majority of the voting securities of the entity that survives such merger or consolidation), (ii) a sale of all or substantially all of the assets of the Parent or (iii) during any period of twelve (12) consecutive months, the individuals who, at the beginning of such period, constitute the Board, and any new director whose election by the Board or nomination for election by the Parent's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the twelve (12) month period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the Board; provided that the following acquisitions shall not constitute a Change of Control for the purposes of this Agreement: any acquisition of Common Stock or securities convertible into Common Stock by any employee benefit plan (or related trust) sponsored by or maintained by the Parent.

(g) Notice of Termination. Any termination of the Executive's employment by the Company or by the Executive (other than termination by reason of the Executive's death) shall be communicated by written Notice of Termination to the other party of this Agreement. For purposes of this Agreement, a "Notice of Termination" shall mean a written notice which shall indicate the specific termination provision in this Agreement relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated, provided, however, failure to provide timely notification shall not affect the employment status of the Executive.

11. Confidential Information.

(a) Disclosure of Confidential Information. The Executive recognizes, acknowledges and agrees that he has had and will continue to have access to secret and confidential information regarding the Parent, the Company, their respective subsidiaries and their respective businesses (collectively, the "Parent Group"), including but not limited to, the Parent Group's products, methods, formulas, software code, patents, sources of supply, customer dealings, data, know-how, trade secrets and business plans ("Confidential Information"), provided such information is not in or does not hereafter become part of the public domain, or become known to others through no fault of the Executive. The Executive acknowledges that such information is of great value to the Parent Group, is the sole property of the Parent Group, and has been and will be acquired

by him in confidence. In consideration of the obligations undertaken by the Parent herein, the Executive will not, at any time, during or after his employment hereunder, reveal, divulge or make known to any person, any information acquired by the Executive during the course of his employment, which is treated as confidential by the Parent Group, and not otherwise in the public domain. The provisions of this Section 11 shall survive the termination of the Executive's employment hereunder. The Executive affirms that he does not possess and will not rely upon the protected trade secrets or confidential or proprietary information of any prior employer(s) in providing services to the Parent Group.

(b) Return of Confidential Information. In the event that the Executive's employment with the Parent terminates for any reason, the Executive shall deliver forthwith to the Parent any and all originals and copies, including those in electronic or digital formats, of Confidential Information; *provided*, *however*, the Executive shall be entitled to retain (i) papers and other materials of a personal nature, including, but not limited to, photographs, correspondence, personal diaries, calendars and rolodexes, personal files and phone books, (ii) information showing his compensation or relating to reimbursement of expenses, (iii) information that he reasonably believes may be needed for tax purposes and (iv) copies of plans, programs and agreements relating to his employment, or termination thereof, with the Parent. The covenants and agreements in this Section 11 shall exclude excludes information (A) which is in the public domain through no unauthorized act or omission of Executive or (B) which becomes available to Executive on a non-confidential basis from a source other than a member of the Parent Group without breach of such source's confidentiality or non-disclosure obligations to the Parent Group.

12. Non-Competition and Non-Solicitation.

(a) The Executive agrees and acknowledges that the Confidential Information that the Executive has already received and will receive is valuable to the Parent Group and that its protection and maintenance constitutes a legitimate business interest of the Parent Group, to be protected by the non-competition restrictions set forth herein. The Executive agrees and acknowledges that the non-competition restrictions set forth herein are reasonable and necessary and do not impose undue hardship or burdens on the Executive. The Executive also acknowledges that the Parent Group's Business (as defined in Section 12(b)(1) below) is conducted worldwide (the "Territory"), and that the Territory, scope of prohibited competition, and time duration set forth in the non-competition restrictions set forth below are reasonable and necessary to maintain the value of the Confidential Information of, and to protect the goodwill and other legitimate business interests of, any member of the Parent Group and/or such member's clients or customers. The provisions of this Section 12 shall survive the termination of the Executive's employment hereunder for the time periods specified below.

(b) The Executive hereby agrees and covenants that he shall not without the prior written consent of the Board, directly or indirectly, in any capacity whatsoever, including, without limitation, as an employee, employer, consultant, principal, partner, shareholder, officer, director or any other individual or representative capacity (other than (i) as a holder of less than two (2%) percent of the outstanding securities of a company whose shares are traded on any national securities exchange or (ii) as a limited partner, passive minority interest holder in a venture capital fund, private equity fund or similar investment entity which holds or may hold an equity or debt position in portfolio companies that are competitive with the Parent; *provided*, *however*, that the Executive shall be precluded from serving as an operating partner, general partner, manager or governing board designee with respect to such portfolio companies), or whether on the Executive's own behalf or on behalf of any other person or entity or otherwise howsoever, during the Term and thereafter to the extent described below, within the Territory:

(i) Engage, own, manage, operate, control, be employed by, consult for, participate in, or be connected in any manner with the ownership, management, operation or control of any business in competition with the Business of the Parent, as defined in the next sentence. For purposes hereof, the Parent Group's "Business" shall mean research, development, techniques and technology in any manner involving or related to the separation of isotopes;

(ii) Recruit, solicit or hire, or attempt to recruit, solicit or hire, any employee, or independent contractor of the Parent Group to leave the employment (or independent contractor relationship) thereof, whether or not any such employee or independent contractor is party to an employment agreement, for the purpose of competing with the Business of the Parent Group;

(iii) Attempt in any manner to solicit or accept from any customer of the Parent Group, with whom Executive had significant contact during Executive's employment by the Parent Group (whether under this Agreement or otherwise), business of the kind or competitive with the business done by the Parent Group with such customer or to persuade or attempt to persuade any such customer to cease to do business or to reduce the amount of business which such customer has customarily done or might do with the Parent Group, or if any such customer elects to move its business to a person other than the Parent Group, provide any services of the kind or competitive with the business of the Parent Group for such customer, or have any discussions regarding any such service with such customer, on behalf of such other person for the purpose of competing with the Business of the Parent Group; or

(iv) Interfere with any relationship, contractual or otherwise, between the Parent Group and any other party, including, without limitation, any supplier, distributor, co-venturer or joint venturer of the Parent Group, for the purpose of soliciting such other party to discontinue or reduce its business with the Parent Group for the purpose of competing with the Business of the Parent Group.

With respect to the activities described in Paragraphs (i), (ii), (iii) and (iv) above, the restrictions of this Section 12(b) shall continue during the term of this Agreement and for a period of one (1) year thereafter.

13. Section 409A.

The provisions of this Agreement are intended to comply with or are exempt from Section 409A of the Code ("Section 409A") and the related Treasury Regulations and shall be construed in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A. The Parent and the Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions necessary, appropriate or desirable to avoid imposition of any additional tax under Section 409A or income recognition prior to actual payment to the Executive under this Agreement.

It is intended that any expense reimbursement made under this Agreement shall be exempt from Section 409A. Notwithstanding the foregoing, if any expense reimbursement made under this Agreement shall be determined to be "deferred compensation" subject to Section 409A ("Deferred Compensation"), then (a) the right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit, (b) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year (provided that this clause (b) shall not be violated with regard to expenses reimbursed under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period the arrangement is in effect) and (c) such payments shall be made on or before the last day of the taxable year following the taxable year in which the expense was incurred.

With respect to the time of payments of any amount under this Agreement that is Deferred Compensation, references in the Agreement to "termination of employment" and substantially similar phrases, including a termination of employment due to the Executive's Disability, shall mean "Separation from Service" from the Parent within the meaning of Section 409A (determined after applying the presumptions set forth in Treasury Regulation Section 1.409A-1(h)(1)). Each installment payable hereunder shall constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b), including Treasury Regulation Section 1.409A-2(b)(2)(iii). Each payment that is made within the terms of the "short-term deferral" rule set forth in Treasury Regulation Section 1.409A-1(b)(4) is intended to meet the "short-term deferral" rule. Each other payment is intended to be a payment upon an involuntary termination from service and payable pursuant to Treasury Regulation Section 1.409A-1(b)(9)(iii), et. seq., to the maximum extent permitted by that regulation, with any amount that is not exempt from Code Section 409A being subject to Code Section 409A.

Notwithstanding anything to the contrary in this Agreement, if the Executive is a "specified employee" within the meaning of Section 409A at the time of the Executive's termination, then only that portion of the severance and benefits payable to the Executive pursuant to this Agreement, if any, and any other severance payments or separation benefits which may be considered Deferred Compensation (together, the "Deferred Separation Benefits"), which (when considered together) do not exceed the Section 409A Limit (as defined herein) may be made within the first six (6) months following the Executive's termination of employment in accordance with the payment schedule applicable to each payment or benefit. Any portion of the Deferred Separation Benefits in excess of the Section 409A Limit otherwise due to the Executive on or within the six (6) month period following the Executive's termination will accrue during such six (6) month period and will become payable in one lump sum cash payment on the date six (6) months and one (1) day following the date of the Executive's termination of employment. All subsequent Deferred Separation Benefits, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if the Executive dies following termination but prior to the six (6) month anniversary of the Executive's termination date, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of the Executive's death and all other Deferred Separation Benefits will be payable in accordance with the payment schedule applicable to each payment or benefit.

For purposes of this Agreement, "Section 409A Limit" shall mean a sum equal to (x) the amounts payable within the terms of the "short-term deferral" rule under Treasury Regulation Section 1.409A-1(b)(4) plus (y) the amount payable as "separation pay due to involuntary separation from service" under Treasury Regulation Section 1.409A-1(b)(9)(iii) equal to the lesser of two (2) times: (i) the Executive's annualized compensation from the Parent based upon his annual rate of pay during the Executive's taxable year preceding his taxable year when his employment terminated, as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1); and (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which the Executive's employment is terminated.

14. Miscellaneous.

(a) Neither the Executive nor the Company may assign or delegate any of their rights or duties under this Agreement without the express written consent of the other; provided, however, that the Company shall have the right to delegate its obligation of payment of all sums due to the Executive hereunder, provided that such delegation shall not relieve the Company of any of its obligations hereunder.

(b) During the term of this Agreement, the Company (i) shall indemnify and hold harmless the Executive and his heirs and representatives to the maximum extent provided by the laws of Guernsey and by the Company's bylaws and (ii) shall cover the Executive under the Parent's directors' and officers' liability insurance on the same basis as it covers other senior executive officers and directors of the Company.

(c) This Agreement constitutes and embodies the full and complete understanding and agreement of the parties with respect to the Executive's employment by the Company, supersedes all prior understandings and agreements, whether oral or written, between the Executive and the Parent or the Company, and shall not be amended, modified or changed except by an instrument in writing executed by the party to be charged. If any provision of this Agreement, or the application thereof, shall for any reason and to any extent be invalid or unenforceable, then the remainder of this Agreement and the application of such provision to other persons or circumstances shall be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that shall achieve, to the extent possible, the economic, business and other purposes of the void or unenforceable provision. No waiver by either party of any provision or condition to be performed shall be deemed a waiver of similar or dissimilar provisions or conditions at the same time or any prior or subsequent time.

(d) This Agreement shall inure to the benefit of, be binding upon and enforceable against, the parties hereto and their respective successors, heirs, beneficiaries and permitted assigns.

(e) The headings contained in this Agreement are for convenience of reference only and shall not affect in any way the meaning or interpretation of this Agreement.

(f) All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been duly given when personally delivered, sent by registered or certified mail, return receipt requested, postage prepaid, or by reputable national overnight delivery service (e.g., Federal Express) for overnight delivery to the party at the address set forth in the preamble to this Agreement, or to such other address as either party may hereafter give the other party notice of in accordance with the provisions hereof. Notices shall be deemed given on the sooner of the date actually received or the third business day after deposited in the mail or one business day after deposited with an overnight delivery service for overnight delivery.

(g) This Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware, and each of the parties hereto irrevocably consents to the jurisdiction and venue of the federal and state courts located in the State of Delaware, for any disputes arising out of this Agreement, or the Executive's employment with the Company. The prevailing party in any dispute arising out of this Agreement shall be entitled to his or its reasonable attorney's fees and costs,

(h) This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one of the same instrument. The parties hereto have executed this Agreement as of the date set forth above.

(i) The Executive represents and warrants to the Company, that he has the full power and authority to enter into this Agreement and to perform his obligations hereunder and that the execution and delivery of this Agreement and the performance of his obligations hereunder will not conflict with any agreement to which the Executive is a party.

(j) The Company represents and warrants to the Executive that it has the full power and authority to enter into this Agreement and to perform its obligations hereunder and that the execution and delivery of this Agreement and the performance of its obligations hereunder will not conflict with any agreement to which the Company is a party.

[Signature page follows immediately]

IN WITNESS WHEREOF, the Executive and the Company have caused this Executive Employment Agreement to be executed as of the date first above written.

PDS-PHOTONICA HOLDINGS (GUERNSEY) LTD.,
a Guernsey Corporation

Signed: /s/ Paul Mann
By: Paul Mann
Its: Chief Executive Officer

EXECUTIVE

Signed: /s/ Robert Ainscow
Name: Robert Ainscow

AMENDMENT TO EXECUTIVE EMPLOYMENT AGREEMENT

Amendment to Executive Employment Agreement, dated as of September 9, 2022 (the "Amendment"), between ASP Isotopes Guernsey Limited (the "Company"), and Robert Ainscow ("Executive", and together with the Company, the "Parties", and each, a "Party").

WHEREAS, the Parties have entered into an Executive Employment Agreement, dated as of October 4, 2021 (the "Existing Agreement"); and

WHEREAS, the Parties desire to amend the Existing Agreement on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Definitions. Capitalized terms used and not defined in this Amendment have the respective meanings assigned to them in the Existing Agreement.

2. Amendments to the Existing Agreement. As of the Amendment Effective Date (defined below), the Existing Agreement is hereby amended or modified as follows:

(a) The first paragraph of Section 1 of the Existing Agreement is hereby deleted in its entirety and replaced with the following:

"Employment and Duties. The Company agrees to employ and the Executive agrees to serve as the Company's Vice President and Interim Chief Financial Officer. In this capacity the Executive shall have such duties, authorities and responsibilities commensurate with the duties, authorities and responsibilities customary to these positions and such other duties and responsibilities as the Company's Chief Executive Officer and the Company's and the Parent's Boards of Directors ("Board") may from time to time assign to the Executive. The Executive will report to the Chief Executive Officer."

(b) Section 4 of the Existing Agreement is hereby deleted in its entirety and replaced with the following:

"Base Salary. The Company agrees to pay the Executive a base salary ("Base Salary") of $160,000 per annum for the first period and $300,000 per annum for the remainder of the Employment Period for the position of Vice President and Head of Business Development. The step up in Base Salary from $160,000 per annum to $300,000 per annum will occur when the Company has produced 250 grams of commercial product. Annual adjustments after the first year of the Employment Period shall be determined by the Board; *provided, however*, that the Base Salary may not be decreased. The Base Salary shall be paid in periodic installments in accordance with the Company's regular payroll practices."

3. Date of Effectiveness; Limited Effect. This Amendment will become effective as of the date first written above (the "Amendment Effective Date"). Except as expressly provided in this Amendment, all of the terms and provisions of the Existing Agreement are and will remain in full force and effect and are hereby ratified and confirmed by the Parties. Without limiting the generality of the foregoing, the amendments contained herein will not be construed as an amendment to or waiver of any other provision of the Existing Agreement or as a waiver of or consent to any further or future action on the part of either Party that would require the waiver or consent of the other Party. On and after the Amendment Effective Date, each reference in the Existing Agreement to "this Agreement," "the Agreement," "hereunder," "hereof," "herein," or words of like import, and each reference to the Existing Agreement in any other agreements, documents, or instruments executed and delivered pursuant to, or in connection with, the Existing Agreement, will mean and be a reference to the Existing Agreement as amended by this Amendment.

4. Miscellaneous.

(a) This Amendment is governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflict of laws provisions of such State.

(b) This Amendment shall inure to the benefit of and be binding upon each of the Parties and each of their respective successors and permitted assigns.

(c) The headings in this Amendment are for reference only and do not affect the interpretation of this Amendment.

(d) This Amendment may be executed in counterparts, each of which is deemed an original, but all of which constitute one and the same agreement. Delivery of an executed counterpart of this Amendment electronically or by facsimile shall be effective as delivery of an original executed counterpart of this Amendment.

(e) This Amendment constitutes the sole and entire agreement between the Parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations, and warranties, both written and oral, with respect to such subject matter.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date first written above.

ASP Isotopes Guernsey Limited

By: /s/ Paul Mann
Name: Paul Mann
Title: Chief Executive Officer

Executive

By: /s/ Robert Ainscow
Name: Robert Ainscow

Exhibit 10.9

ADVISORY AGREEMENT

The Advisor Agreement ("Agreement") effective as of 27 October 2021 (the "Effective Date"), between ASP Isotopes, Inc. (including its successors and assigns, the "Company") and ChemBridges LLC, a Puerto Rico limited liability company ("Advisor").

WHEREAS, the Company is an emerging global leader in production of high purity isotopes for medical diagnostics and other applications.

WHEREAS, ChemBridges LLC (a Puerto Rico-based and registered company) is a strategic advisory firm, with extensive experience in analysis of chemical markets, chemical and allied products, technology, financial and investment analysis.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Term. Subject to earlier termination option (described in Section 5), the term of this Agreement shall be effective at the day of signing by both parties (the "Effective Date") and shall continue for 36 months thereafter. This Agreement will be "evergreen", automatically extended for another 12 months, unless terminated by a written notice from either party three months prior to the contract expiration. The period of time from the Effective Date through the termination of this Agreement is herein referred to as the "Term."

2. Scope of Services.

The scope of Advisory role by ChemBridges LLC is to provide subject matter expertise on a wide range of commercial activity and strategic execution of key global business objectives, including but not limited to the advisory services on strategy, M&A, R&D, organic growth, operational optimization, commercial excellence, IR and corporate governance (collectively, the "Services").

3. Provision of Advisory Services.

a) During the Term, Advisor shall retain Sergey Vasnetsov ("Principal") to perform the Services with assistance of Principal's research associates (if and as needed, depending on a project) (the Principal and any such research associates, each a "Representative" and collectively the "Representatives"). It is acknowledged and agreed that: (i) selection of type and timing of Services will be directed by the Company's Chief Executive Officer for the benefit of the Company and (ii) Advisor is not providing continuous and regular supervisory or management services. Advisor shall devote time and resources as are necessary for the performance of the Services hereunder on an as-needed basis, as may reasonably be requested by Company and agreed to by Advisor.

b) Subject to Section 12(a), (b) and (c), and provided Advisor performs the Services as required by this Agreement, nothing in this Agreement shall prohibit Advisor from providing consulting or advisory services to any Person other than a Competitor. In this Agreement:

> a "Person" means any individual, corporation (including any non-profit corporation), general or limited partnership, limited liability company, joint venture, association, organization, or any other entity; and
>
> b "Competitor" means any Person that directly or indirectly competes with the Company or any of its affiliates or subsidiaries in the business of sourcing, developing, selling, marketing, or producing of isotopes.

c) Advisor acknowledges and agrees to be responsible for providing its own office space and office equipment, and to be available for communication with Company as may be reasonably requested via telephone, video conferences and email. Advisor further acknowledges that advisory services may require his domestic or international travel.

d) As an independent contractor, Advisor is responsible for paying appropriate taxes to relevant government entities. The parties agree that by virtue of the provision of the Services under this Agreement, Advisor shall not be entitled to any Company benefits, including but not limited to life insurance, accident and health insurance, death benefits, qualified pension or retirement plan, vacations, sick days or other benefits that Company provides to its full-time employees.

4. **Binding on Advisor's Employees and Agents.** The requirements of this Agreement, including, without limitation, the terms and conditions relating to confidentiality, conflict, non-solicitation, deliverables, assignment of work product and intellectual property rights, shall be binding on Principal, each other Representative, and any other employees, agents or contractors of Advisor. Advisor covenants and agrees to cause Principal and each other Representative to accept and agree in writing to be bound by the terms of this Agreement relating to confidentiality, conflict, non-solicitation, and assignment of work product and intellectual property rights.

5. **Termination of Services.** Advisor may terminate this Agreement for any reason ("without cause") upon 180 days' advance written notice to the Company. Likewise, the Company may terminate this agreement "without case" upon 180 days advance written notice to Advisor. The Company may also terminate this Agreement upon written notice to Advisor if Advisor materially breaches any provision of this Agreement and does not cure the breach within 2 weeks of notification by Company of such breach. Upon termination of this Agreement under this Section 5 (or upon non-renewal of the Term as provided in Section 1) Company shall have no further obligation to Advisor hereunder except for reimbursement of any unreimbursed Advisor expenses and pro-rata payment for the partial year of Advisor Services up to the effective termination date, including impact of 180 days advance notice written by either party.

6. **Compensation.** Full compensation for the Services will include two components, as follows:

   a) Within ten (10) business days following the Effective Date, the Board of Directors of the Company (the "Board") will grant to Advisor 600,000 shares of restricted stock (the "Restricted Shares") under the Company's 2021 Stock Incentive Plan (the "SIP"). The Restricted Shares shall vest in three (3) equal annual installments beginning on the first anniversary of the Effective Date, and all vested shares immediately become unrestricted common shares, the property of Advisor. The Restricted Shares will be subject to the terms of the SIP and a form of award agreement approved by the Board. Any unvested Restricted Shares will be forfeited to the Company for no consideration upon termination of this Agreement.

   b) On the last day of each of the first eight calendar quarters following the first anniversary of the Effective Date, the Board will grant to Advisor an unrestricted award of common stock of the Company (each a "Common Stock Award") with a value of One Hundred Sixty Thousand Dollars ($160,000) annually. The number of shares granted in each Common Stock Award shall be determined by dividing $40,000 by the fair market value per share of Common Stock, as determined in good faith by the Board (which, if the Company's common stock is publicly traded on a national securities exchange shall be the closing price per share on the trading day immediately preceding the applicable Common Stock Award grant date, as reported by the principal trading market for the Company's common stock).

7. **Expense Reimbursement.** During the Term of this agreement, the Company shall reimburse the Advisor for all reasonable out-of-pocket expenses incurred by the Advisor in attending any in-person meetings, provided that the Advisor complies with the generally applicable policies, practices and procedures of the Company for submission of expense reports, receipts or similar documentation of such expenses.

8. Compliance with Rules. Advisor shall fully comply with all of the Company's working and safety rules, when working at Company's facility(ies) or premises, and Advisor shall be responsible for his actions while on Company premises or otherwise providing the Services requested by Company.

9. Compliance with Law. During the performance of the Services, Advisor, at his own expense and at all times, shall comply with any and all laws and ordinances and any and all rules, regulations, and orders of public authorities applicable thereto, including, but not limited to, tax and social welfare laws, applicable worker's compensation laws, unemployment insurance requirements, employer's liability requirements, and minimum wage.

10. Severability. Should any provision of this Agreement be invalidated or rendered void by a court of competent jurisdiction, such decision shall not affect the remaining provisions, which will remain in full force and effect as if the invalid or void provision had not been included in the original Agreement.

11. Advisor's Representation and Acknowledgment. Advisor represents to the Company that his execution and performance of this Agreement shall not be in violation of any agreement or obligation (whether or not written) that he may have with or to any person or entity, including without limitation, any prior or current employer. Advisor hereby acknowledges and agrees that this Agreement (and any other agreement or obligation referred to herein) shall be an obligation solely of the Company, and Advisor shall have no recourse whatsoever against any stockholder of the Company or any of their respective affiliates with regard to this Agreement.

12. Advisor and Principal Covenants. (a) Unauthorized Disclosure. Advisor agrees and understands that in its position with the Company, it will be exposed to and receive information relating to the confidential affairs of the Company, including, but not limited to, research programs and results, data, scientific concepts, inventions and technical information (collectively, "Company IP"), business and marketing plans, strategies, customer information, other information concerning the Company's research and development activities, products, promotions, development, financing, expansion plans, business policies and practices, and other forms of information considered by the Company to be confidential and in the nature of trade secrets. Advisor agrees that during the Term and thereafter, Advisor will keep such information confidential and will not disclose such information, either directly or indirectly, to any third person or entity without the prior written consent of the Company; provided, however, that (i) Advisor shall have no such obligation to the extent such information is or becomes publicly known or generally known in the Company's industry other than as a result of Advisor's breach of its obligations hereunder and (ii) Advisor may, after giving prior notice to the Company to the extent practicable under the circumstances, disclose such information to the extent required by applicable laws or governmental regulations or judicial or regulatory process. This confidentiality covenant has no temporal, geographical or territorial restriction. Upon termination of the Term, Advisor will promptly return to the Company and/or destroy at the Company's direction all property, keys, notes, memoranda, writings, lists, files, reports, customer lists, correspondence, tapes, disks, cards, surveys, maps, logs, machines, technical data, other product or document, and any summary or compilation of the foregoing, in whatever form, including, without limitation, in electronic form, which has been produced by, received by or otherwise submitted to Advisor in the course or otherwise as a result of Advisor's position with the Company during or prior to the Term, provided that the Company shall retain such materials and make them available to Advisor if requested by it in connection with any litigation against Advisor under circumstances in which (i) Advisor demonstrates to the reasonable satisfaction of the Company that the materials are useful to its defense in the litigation and (ii) the confidentiality of the materials is preserved to the reasonable satisfaction of the Company.

(b) Non-Solicitation. During the Term and for a period of three (3) years thereafter, Advisor shall not interfere with the Company's relationship with, or endeavor to entice away from the Company, any person who, on the date of the termination of the Term and/or at any time during the one year period prior to the termination of the Term, was an employee, contractor, service provider, customer, or vendor of the Company or otherwise had a material business relationship with the Company.

(c) No Conflict. Advisor will not engage in any activity that creates an actual or perceived conflict of interest with the Company, regardless of whether such activity is prohibited by Company's conflict of interest guidelines or this Agreement, and Advisor agrees to immediately notify the Board before engaging in any activity that could reasonably be assumed to create a potential conflict of interest with Company. Advisor shall not engage in any activity that is in direct competition with the Company or serve in any capacity (including, but not limited to, as an employee, consultant, advisor or director) in any company or entity that competes directly or indirectly with the Company without the approval of the disinterested members of the Board. Nothing in this Section 6(c) shall prohibit Advisor from being (i) a stockholder in a mutual fund or a diversified investment company or (ii) a passive owner of any class of securities of a corporation, which are either private or publicly traded, so long as Advisor has no active participation in the business of such corporation or (iii) serving as an employee, consultant, director, advisor or board member of any other company that does not engage in any activity that is in direct competition with the Company.

(d) Remedies. Advisor agrees that any breach of the terms of this Section 12 would result in irreparable injury and damage to the Company for which the Company would have no adequate remedy at law; Advisor therefore also agrees that in the event of said breach or any threat of breach, the Company shall be entitled to an immediate injunction and restraining order to prevent such breach and/or threatened breach and/or continued breach by Advisor and/or any and all entities acting for and/or with Advisor without having to prove damages or paying a bond, in addition to any other remedies to which the Company may be entitled at law or in equity. The terms of this paragraph shall not prevent the Company from pursuing any other available remedies for any breach or threatened breach hereof, including, but not limited to, the recovery of damages from Advisor. Advisor acknowledges that the Company would not have entered into this Agreement had Advisor not agreed to the provisions of this Section 12.

(e) During the Term, and at all times thereafter, Advisor shall cooperate with the Company, at the Company's sole cost and expense (not including legal fees and expenses that Advisor may incur by retaining independent counsel), with respect to matters about which Advisor has knowledge, including, without limitation (i) matters involving any review, audit or investigation by the Company and (ii) any pending or threatened claim, demand, action, cause of action, suit, litigation, or administrative or arbitral proceeding, hearing or review, including, without limitation, any request from a regulatory or similar agency, involving the Company.

(f) The provisions of this Section 12 shall survive any termination of the Term, and the existence of any claim or cause of action by Advisor against the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by the Company of the covenants and agreements of this Section 12.

13. Work Product. In the event that Advisor participates in any of the Company's research and development activities ("Company Practice"), or pursues research and development activities that are premised on, or extensions of, in whole or in part, research or development activities carried on by the Company ("Derivative Practice"), then the Company shall own all right, title and interest relating to all inventions, improvements, discoveries, methods, developments, software, and works of authorship, whether patentable or not, which are created, made, conceived or reduced to practice by Advisor or jointly with others and are either materially derivative from Company Practice or Derivative Practice or involved Advisor's use of Company IP (collectively, "Developments"). Advisor agrees to make full and prompt disclosure to the Company of all Developments and provide all Developments and all materials and concepts relating to Developments to the Company. Advisor hereby assigns to the Company or its designee all of Advisor's right, title and interest in and to any and all Developments. Advisor agrees to cooperate fully with the Company, both during and after the term of this Agreement, with respect to the procurement, maintenance and enforcement of intellectual property rights (both in the United States and foreign countries) relating to any Developments. Advisor shall sign all documents which may be necessary or desirable in order to protect the Company's rights in and to any Developments, and Advisor hereby irrevocably designates and appoints each officer of the Company as Advisor's agent and attorney-in-fact to execute any such documents on Advisor's behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Developments. Notwithstanding anything to the contrary above, this Section 13 does not apply to an invention for which no equipment, supplies, facility of the Company or Company IP was used, unless the invention relates to the business of the Company or to the Company's actual or demonstrably anticipated research or development, or the invention results from any work performed by Advisor for the Company.

14. Notices. Every notice relating to this Agreement shall be in writing and shall be given by personal delivery or by email with a read receipt; to:

If to the Company:

Attn: CEO of ASP Isotopes Inc.

433 Plaza Real, Suite 275 Boca Raton, FL. 33432

Email: pmann@aspisotopes.com

If to Advisor at the address set forth below Indemnitee signature hereto.

Either of the parties hereto may change their address for purposes of notice hereunder by giving notice in writing to such other party pursuant to this Section 14.

15. Binding Effect/Assignment. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, personal representatives, estates, successors (including, without limitation, by way of merger) and assigns. Notwithstanding the provisions of the immediately preceding sentence, neither Advisor nor the Company shall assign all or any portion of this Agreement without the prior written consent of the other party

16. Limitation of Liability.

a) Neither party is assuming any liability for the actions or omissions of the other party except as stated in this Agreement. Company is one of the global industry leaders in its field, and is a sophisticated customer of consulting and advisory services. As such, Company shall indemnify Advisor for all claims arising out of Advisor's performance of the services, due to intended and unintended use of Advisor's advice and results of Advisor's services for Company, arising both during and at any time after the Term.

b) Notwithstanding any provision to the contrary, nothing in this Agreement limits or excludes either party's liability to the extent it relates to: death or personal injury caused by its negligence; fraud; fraudulent misrepresentation; or any other liability which may not be lawfully limited or excluded.

c) Neither party shall be liable for consequential, special, incidental or indirect losses including, without limitation, (i) loss of profits, revenue or goodwill; (ii) loss of business or (iii) loss of anticipated savings.

d) Each party agrees to use all reasonable endeavors to mitigate any losses which it may suffer under or in connection with this Agreement (including in relation to any losses covered by an indemnity) and any amounts it seeks from the other party in respect of any such liability.

17. Advisor's Representations and Warranties.

a) Advisor has the full power and authority to enter into this Agreement without the consent or approval of any other person, including any present or previous employers, and

b) Advisor's execution, delivery and performance of this Agreement will not violate or cause a breach of any existing employment, consultant or any other agreement, covenant, promise or any other duties by which Advisor is bound, including confidentiality obligations or covenants not to compete including any present or previous employers.

18. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to the principles of conflict of laws. All actions and proceedings arising out of or relating to this Agreement shall be heard and determined in any court in Delaware and the parties hereto hereby consent to the jurisdiction of such courts in any such action or proceeding; provided, however, that neither party shall commence any such action or proceeding unless prior thereto the parties have in good faith attempted to resolve the claim, dispute or cause of action which is the subject of such action or proceeding through mediation by an independent third party.

This Agreement has been duly executed by the parties as of the date first written above.

Accepted and Agreed:

ASP Isotopes Inc.

By: /s/ Paul Mann
Name: Paul Mann
Title: CEO

Date:

ChemBridges LLC

/s/ Sergey Vasnetsov
Name: Sergey Vasnetsov
Title: President
Date: 28 October 2021

AMENDMENT TO ADVISORY AGREEMENT

Amendment to Advisory Agreement, dated as of July 1, 2022 (the "Amendment"), between ASP Isotopes Inc., a Delaware corporation (including its successors and assigns, the "Company"), and ChemBridges LLC, a Puerto Rico limited liability company ("Advisor", and together with the Company, the "Parties", and each, a "Party").

WHEREAS, the Parties have entered into an Advisory Agreement, dated as of October 27, 2021 (the "Existing Agreement");

WHEREAS, Advisor has made significant contributions to the achievement of the Company's objectives and devoted significant time and attention, at the Company's request, beyond the scope of advisory services contemplated by the Existing Agreement; and

WHEREAS, the Parties desire to amend the Existing Agreement to provide additional compensation to Advisor to incentivize continued future performance and encourage retention of services on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Definitions. Capitalized terms used and not defined in this Amendment have the respective meanings assigned to them in the Existing Agreement.

2. Amendments to the Existing Agreement. As of the Amendment Effective Date (defined below), the Existing Agreement is hereby amended or modified as follows:

(a) Section 6(a) of the Existing Agreement is hereby amended by inserting at the end of such Section 6(a) the following new sentences:

"The Board will grant to Advisor an additional 600,000 shares of restricted stock under the SIP, which will vest quarterly over a one-year period from grant (i.e., in equal increments of 150,000 shares on the first day of October in 2022 and January, April and July in 2023), subject to Advisor's Continuous Service (as defined in the SIP) as of each such date. Such additional shares of restricted stock will be subject to the terms and conditions of the SIP and a restricted stock award agreement between the Company and Advisor."

3. Date of Effectiveness; Limited Effect. This Amendment will become effective as of the date first written above (the "Amendment Effective Date"). Except as expressly provided in this Amendment, all of the terms and provisions of the Existing Agreement are and will remain in full force and effect and are hereby ratified and confirmed by the Parties. Without limiting the generality of the foregoing, the amendments contained herein will not be construed as an amendment to or waiver of any other provision of the Existing Agreement or as a waiver of or consent to any further or future action on the part of either Party that would require the waiver or consent of the other Party. On and after the Amendment Effective Date, each reference in the Existing Agreement to "this Agreement," "the Agreement," "hereunder," "hereof," "herein," or words of like import, and each reference to the Existing Agreement in any other agreements, documents, or instruments executed and delivered pursuant to, or in connection with, the Existing Agreement, will mean and be a reference to the Existing Agreement as amended by this Amendment.

4. Miscellaneous.

(a) This Amendment is governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflict of laws provisions of such State.

(b) This Amendment shall inure to the benefit of and be binding upon each of the Parties and each of their respective successors and permitted assigns.

(c) The headings in this Amendment are for reference only and do not affect the interpretation of this Amendment.

(d) This Amendment may be executed in counterparts, each of which is deemed an original, but all of which constitute one and the same agreement. Delivery of an executed counterpart of this Amendment electronically or by facsimile shall be effective as delivery of an original executed counterpart of this Amendment.

(e) This Amendment constitutes the sole and entire agreement between the Parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations, and warranties, both written and oral, with respect to such subject matter.

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date first written above.

ASP Isotopes Inc.

By: /s/ Paul Mann
Name: Paul Mann
Title: Chief Executive Officer

ChemBridges LLC

By: /s/ Sergey Vasnetsov
Name: Sergey Vasnetsov
Title: President

Exhibit 10.10

LICENSE AGREEMENT

between

Klydon (PROPRIETARY) LIMITED
(Registration Number 1997/019687/07)

and

PDS Photonica Holdings South Africa (PROPRIETARY) LIMITED
(Registration Number 2021/701779/07)

INDEX

NO	CLAUSE HEADING	PAGE
1	DEFINITIONS AND INTERPRETATION	2
1.1	Definitions	2
1.2	Interpretation	5
2	GRANT OF LICENCE	5
3	EXCLUSIVITY AND LICENCE RESTRICTIONS	5
3.2	Licence Restrictions	6
4	DURATION	6
5	INTELLECTUAL PROPERTY RIGHTS AND IMPROVEMENTS	6
5.1	Intellectual Property Rights	6
5.2	Improvement	8
6	TECHNICAL INFORMATION AND QUALITY CONTROL	9
6.1	Technical Information and Assistance	9
6.2	Quality control	10
7	WARRANTIES, EXCLUSION OF LIABILITY AND INDEMNITY	11
7.1	Warranties	11
7.3	Indemnity	12
8	FORCE MAJEURE	13
9	TERMINATION	14
10	CONFIDENTIALITY AND PROTECTION OF INFORMATION	15
11	BREACH	17
12	DISPUTE RESOLUTION	18
13	NOTICES AND *DOMICILIA*	20
14	MISCELLANEOUS WARRANTY OF AUTHORITY	22
14.1	Warranty of authority	22
14.2	Independent Advice	22
14.3	Implementation	22
14.4	Payment	22
14.5	Whole Agreement	23

14.6	Variation	23
14.7	Relaxation	23
14.8	Counterparts	23

ANNEXURE A

LICENCE AGREEMENT

This Agreement is made and entered into between -

(1) **Klydon (PTY) Limited** of Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184 (Registration Number 1997/109687/07) ('**Licensor**"); and

(2) **PDS Photonica Holdings South Africa (PTY) Limited** of Unit 19 2nd floor , 1 Melrose Boulevard, Melrose Arch, Gauteng, 2076 (2021/701779/07) ("**Licensee**").

RECITALS

A. Licensor owns certain Intellectual Property, and has the right to grant a licence to use and exploit the Intellectual Property.

B. Licensor has agreed to certain obligations set out in the Term Sheet. One of its obligations is to award an exclusive license to use the Intellectual Property Rights in respect of the Technology.

C. Licensor has agreed to grant Licensee the exclusive right to use the Intellectual Property Rights in the Territory to meet this obligation.

D. The Licensee wishes to acquire from the Licensor the exclusive right to use the Intellectual Property Rights in respect of the Technology to develop it and produce the molybdenum isotope Mo-100 in South Africa and distribute, market and sell that Mo-100 isotope globally.

E. The rights granted under this agreement will commence on the termination of the API License and will continue for the Term.

The Parties agree as follows:

1 **DEFINITIONS AND INTERPRETATION**

1.1 **Definitions**

In this Agreement and the recitals, unless clearly inconsistent with or otherwise indicated by the context -

1.1.1 "**Agreement**" means the agreement set out in this document and the appendices hereto;

1.1.2 **"API License"** means the license between Licensor and API Labs Pharmaceuticals (Pty) Ltd entered into on 25 October 2013 and any sub licenses of that license.

1.1.3 "**Confidential Information**" means all and any information or data in whatever form (including in oral, written, electronic and visual form) relating to a Party or the Technology which by its nature or content is identifiable as, or could reasonably be expected to be, confidential and/or proprietary to either Party and includes, (even if not marked as being confidential, restricted, secret, proprietary or any similar designation), any and all information in respect of the Technology;

1.1.4 "**Copyright**" means copyright in the Territory in respect of the Technology;

1.1.5 "**Designs**" means any registered designs and design applications in respect of the Technology;

1.1.6 "**Effective Date**" means immediately after the termination of the API License;

1.1.7 "**Improvement**" means any change, development, improvement or modification to any aspect of the Intellectual Property Rights, the Technology or any method of development of the Technology, use or application of the Technology including any change, improvement or modification which makes the Technology more efficient or adaptable or enables the Technology to be manufactured more economically or efficiently or to a higher standard;

1.1.8 "**Independent Auditors**" means such independent auditors as may be agreed between the Licensor and the Licensee, or failing agreement within 10 (ten) business days from the date of a request by any Party for such agreement, appointed by the Executive President for the time being of the South African Institute of Chartered Accountants from one of the 4 (four) largest (based on number of partners) independent firms of auditors in South Africa at the time;

1.1.9 "**Intellectual Property Rights**" means all existing and/or future proprietary rights of the Licensor relating to the Technology, whether or not such rights have been registered, including the –

1.1.9.1 Copyright;

1.1.9.2 Designs;

1.1.9.3 Know-how;

1.1.9.4 Patents; and

1.1.9.5 Trade Marks.

1.1.10 "**Know-how**" means all information and knowledge of whatever nature relating to the manufacture, distribution, marketing, use and/or sale of the Technology owned or controlled by the Licensor, including technical information, production data, drawings, specifications, engineering and scientific information, manufacturing and tooling information, testing and quality control procedures, secret processes, formulae, marketing and application information and other Confidential Information;

1.1.11 "**Licensee**" means PDS Photonica Holdings South Africa (Pty) Ltd (Registration Number 2021/701779/07), a company duly registered and incorporated with limited liability in accordance with the laws of the Republic of South Africa, herein represented by Dr Hendrik Strydom (ID Number 6006195024089) he being duly authorised thereto;

1.1.12 "**Licensor**" means Klydon (Proprietary) Limited (Registration Number 1997/109687/07), a company duly registered and incorporated with limited liability in accordance with the laws of the Republic of South Africa, herein represented by Dr Einar Ronander (ID Number 500609073088), he being duly authorised thereto;

1.1.13 "**Parties**" means the Licensor and Licensee and "**Party**" shall mean either one of them as the context requires;

1.1.14 "**Patents**" means any registered patents and patent applications in respect of the Technology;

1.1.15 "**Prime Rate**" means the publicly quoted basic rate of interest, compounded monthly in arrears and calculated on a 365 (three hundred and sixty five) day year irrespective of whether or not the year is a leap year, from time to time published by the Licensor's bankers from time to time as being its prime overdraft rate, as certified by any representative of that bank whose appointment and designation it will not be necessary to prove;

1.1.16 "**Subject Isotope**" means the Mo-100 isotope produced using the Technology;

1.1.17 **"Technology"** means the Aerodynamic Separation Process (ASP) Technology that is able to separate the isotopes of Molybdenum;

1.1.18 **"Term"** means a period of 999 (nine hundred and ninety nine) years, unless this Agreement is terminated in accordance with its terms;

1.1.19 **"Term Sheet"** means the binding term sheet signed by ASP Isotopes LLC, the Licensor and PDS-Photonica Holdings (Guernsey) Limited on or about 5 September 2021, attached as Annexure A;

1.1.20 "**Territory**" means South Africa for the development of the Technology and production of the Subject Isotope; and globally for the distribution, marketing and sale of the Subject Isotope; and

1.1.21 "**Trade Marks**" means the registered trade marks, trade mark applications and/or common law trade marks in respect of the Technology.

1.2 **Interpretation**

1.2.1 In this Agreement and the recitals, unless clearly inconsistent with or otherwise indicated by the context -

1.2.1.1 any reference to the singular includes the plural and *vice versa*;

1.2.1.2 any reference to natural persons includes legal persons and *vice versa*; and

1.2.1.3 any reference to a gender includes the other genders.

1.2.2 Where appropriate, meanings ascribed to defined words and expressions in 1.1, shall impose substantive obligations on the Parties.

1.2.3 The clause headings in this Agreement have been inserted for convenience only and shall not be taken into account in its interpretation.

1.2.4 Words and expressions defined in any sub-clause shall, for the purposes of the clause of which that sub-clause forms part, bear the meanings assigned to such words and expressions in that sub-clause.

1.2.5 This Agreement shall be governed by and construed and interpreted in accordance with the law of the Republic of South Africa.

2 GRANT OF LICENCE

The Licensor hereby gives and grants to the Licensee, which hereby accepts, an exclusive licence to use, sub contract and sub license the Intellectual Property Rights during the Term for the development and/or otherwise disposing of the Technology and production, distribution, marketing and or sale of the Subject Isotope in the Territory.

3 EXCLUSIVITY AND LICENCE RESTRICTIONS

3.1 Exclusivity

The licence granted by the Licensor under this Agreement is exclusive, such that, whilst this Agreement remains in force, the Licensor shall not be entitled, directly or indirectly, to use, grant or otherwise give the rights (or any of them), or any similar rights, which are granted and/or given to the Licensee under this Agreement to any other party for use within the Territory.

3.2 **Licence Restrictions**

3.2.1 The Licensee will not, whilst this Agreement remains in force, acquire the license for, or otherwise develop any technology that is similar to or competitive with the Technology in the Territory and will not, produce, distribute, market and/or sell any isotopes except the Subject Isotope.

3.2.2 The Licensee will not, without the prior written consent of the Licensor, use the trade names of the Licensor or Trade Marks in combination with any other trade names or trade marks, nor use trade names, symbols or letters which are confusingly similar to the trade names or Trade Marks.

4 **DURATION**

4.1 This Agreement shall commence on the Effective Date and shall continue in full force for the Term.

4.2 The duration of this Agreement shall not be affected by –

4.2.1 the lapsing of one or more of the Intellectual Property Rights, whether by effluxion of time or otherwise; and

4.2.2 any Patent, Design or Trade Mark comprising the Intellectual Property Rights failing to proceed to grant or final prosecution or being held to be invalid.

5 **INTELLECTUAL PROPERTY RIGHTS AND IMPROVEMENTS**

5.1 **Intellectual Property Rights**

5.1.1 The Licensee acknowledges and agrees that the Intellectual Property Rights are and shall remain the sole and absolute property of the Licensor and further acknowledges that the reputational use thereof in terms of this Agreement shall enure for the benefit of the Licensor.

5.1.2 The Licensee shall not anywhere in the world, whether during or after the period of currency of this Agreement -

5.1.2.1 oppose or contest any intellectual property application by the Licensor or the ownership of the Licensor therein;

5.1.2.2 dispute, contest or question the validity of the Intellectual Property Rights and shall not assist or counsel any other person to do so;

5.1.2.3 directly or indirectly register the Trade Marks, or any confusingly similar trade marks, anywhere in the Territory; or

5.1.2.4 directly or indirectly use any trade marks confusingly similar to the Trade Marks anywhere in the Territory.

5.1.3 No right, title or interest in and to the Intellectual Property Rights is hereby transferred except the right to use the Intellectual Property Rights during the Term of this Agreement in the manner and subject to the terms and conditions set out in this Agreement. The Licensor shall have no right to sell, assign, transfer, alienate, hire, lease, pledge, hypothecate, otherwise dispose of or encumber or to reproduce the whole or any part of the Intellectual Property Rights without the specific prior written consent of the Licensee which consent shall not unreasonably be withheld.

5.1.4 The Licensee shall not in any way represent that it has any rights of any nature in and to the Intellectual Property Rights, other than those which it enjoys in terms of this Agreement. The Licensee shall only use the Intellectual Property Rights in respect of the Technology, as permitted by this Agreement.

5.1.5 The Licensor shall have the right from time to time to lay down in writing or otherwise reasonable standard and/or specific procedures for the use of the Intellectual Property Rights and from time to time to add to, amend, vary, supplement, change, alter or repeal such standard and/or specific procedures on reasonable notice to the Licensee.

5.1.6 The Licensee shall not do or cause to be done any act or thing contesting or in any way impairing or tending to impair any part of the Licensor's exclusive right, title and interest in and to the Intellectual Property Rights.

5.1.7 The Licensee undertakes to use its reasonable endeavours to ensure that the reputation and goodwill of the Intellectual Property Rights are protected, maintained and wherever possible enhanced.

5.1.8 The prosecution and/or defence of any claim in relation to the Intellectual Property Rights shall be the sole responsibility and shall be undertaken within the sole and absolute discretion of the Licensor, provided that the Licensee shall forthwith notify the Licensor of any claims or possible infringements of the Intellectual Property Rights of which the Licensee becomes aware and the Licensee shall, if required by the Licensor and at the Licensor's cost, join with the Licensor as a party to such proceedings, and/or assist the Licensor in any such proceedings in the manner and to the extent reasonably required by the Licensor. The Licensee shall not be entitled to make any admissions of liability in regard to any such claim or to negotiate any settlement in respect thereof without the specific prior written consent of the Licensor. Notwithstanding the aforesaid, the Licensee shall be entitled to defend any claim as contemplated in this clause 5.1.8 if the Licensor fails to take any steps in relation to such claim.

5.1.9 The Licensor shall, at the Licensor's expense maintain all statutory registrations of any item of the Intellectual Property Rights in force and the Licensor shall pay all renewal and any other fees necessary for this purpose. Notwithstanding the aforesaid, the Licensee shall have the right to make any such payment and recover the payment from the Licensor if the Licensor fails to make any such payments.

5.2 **Improvement**

If at any time during the Term of this Agreement –

5.2.1 the Licensor makes, or receives the benefit of any Improvement or Know-how to the Technology, the Licensor undertakes to inform the Licensee of such Improvement or Know-how and the Licensee may make use of such Improvement or Know-how for the purposes of this Agreement. If such Improvement involves additions to the Know-how, such additions will also be deemed to be part of the Intellectual Property Rights licensed in terms of this Agreement; and

5.2.2 the Licensee makes any Improvement to the Technology, the Licensee will promptly inform the Licensor thereof in writing and hereby assigns, free of compensation or other claim, all rights in such Improvement to the Licensor and will assist the Licensor, at the Licensor's cost, to obtain patent, design, trade mark, copyright and all similar forms of protection for such Improvement at the expense of the Licensor. The Licensee may make use of such Improvements for the purposes of this Agreement.

6 TECHNICAL INFORMATION AND QUALITY CONTROL

6.1 **Technical Information and Assistance**

6.1.1 The Licensor shall on the Effective Date and during the Term supply, free of charge, to the Licensee -

6.1.1.1 copies of all such documents containing technical information as may be required or necessary to enable the Licensee to use the Intellectual Property Rights for the development and/or otherwise disposing of the Technology and production, distribution, marketing and or sale of the Subject Isotope in the Territory; and

6.1.1.2 such further information and Know-how relating generally to the materials, methods and processes required by the Licensor for the development of the Technology and production, distribution, marketing and or sale of the Subject Isotope in the Territory.

6.1.2 The Licensor shall –

6.1.2.1 provide, sufficient adequately skilled technical staff able to provide technical assistance to the Licensee in establishing the plant and production facilities necessary to develop the Technology and produce, distribute, market and sell the Subject Isotope;

6.1.2.2 advise the Licensee on all matters relating to the purchase of suitable plant, machinery, tools, fixtures and fittings necessary to establish plant and production facilities;

6.1.2.3 advise the Licensee on matters relating to the purchase of suitable sources of raw materials necessary for the use of the Technology;

6.1.2.4 for the Term of this Agreement provide ongoing technical expertise, support, assistance and advice to the Licensee for the purpose of enabling the Licensee to develop the Technology and to produce, distribute, market and sell the Subject Isotope. The Licensor will, at the reasonable request of the Licensee make available, for such period as the Licensor in its sole reasonable discretion may determine, technical and other staff for the purposes of fulfilling the Licensor's obligations in terms hereof;

6.1.2.5 provide the Licensee with such assistance as the Licensee may reasonably require, at no charge to the Licensee, to obtain any regulatory approvals as may be required for the Licensee to use the Technology and to produce, distribute, market and sell the Subject Isotope.

6.1.3 It is expressly recorded that the Licensor shall not be responsible or liable for consequential damages or loss of profit which might arise out of the use by the Licensee of any technical information or advice furnished to the Licensee hereunder, unless Licensee can prove on a balance of probabilities that the technical information or advice was wrong or misleading, and that an expert in the field would have known it to be wrong or misleading.

6.2 **Quality control**

The Licensee shall –

6.2.1 use the Technology and produce, distribute and market the Subject Isotope strictly in accordance with the specifications and quality standards from time to time prescribed by the Licensor;

6.2.2 ensure that the highest standards of workmanship and material available are employed in the use of the Technology and the production of the Subject Isotope; and

6.2.3 upon receipt of reasonable notice, permit the Licensor's duly authorised representatives at all reasonable times to enter the premises where the Technology is being used, or the Subject Isotope is being produced in order to ascertain whether the Licensor's quality control standards are being adhered to and for this purpose will also have the right to take necessary samples of the Subject Isotope for examination, testing and analysis.

7 WARRANTIES, EXCLUSION OF LIABILITY AND INDEMNITY

7.1 **Warranties**

7.1.1 The Licensor warrants that, as at the Effective Date and on each day during the Term–

7.1.1.1 it is the sole beneficial owner of the Intellectual Property Rights and that it has the right to licence the Intellectual Property Rights in the Territory;

7.1.1.2 it is free to grant the licence conferred by this Agreement and that it has not granted any other licence to the Intellectual Property Rights in the Territory;

7.1.1.3 the Intellectual Property Rights are valid, enforceable and unencumbered;

7.1.1.4 the Intellectual Property Rights and the use thereof does not infringe the intellectual property rights of any third party;

7.1.1.5 its rights in and to the Intellectual Property Rights have not been contested, in whole or in part, by anyone whomsoever;

7.1.1.6 it has no knowledge of any circumstances or facts that might render the Intellectual Property Rights invalid, unenforceable, or encumbered; and

7.1.1.7 it has not taken any action or omitted to take any action as a result of which the Intellectual Property Rights or any part thereof could become unenforceable.

7.1.2 The Licensor does not, and the Licensee expressly acknowledges that under this Agreement the Licensor does not in any way warrant or guarantee either expressly or by implication the Technology or the Subject Isotope.

7.2 **Exclusion of liability**

7.2.1 Subject to this Agreement and to the extent permitted by applicable law, the Licensor disclaims all warranties and representations, either express or implied with respect to the Intellectual Property Rights, including but not limited to any implied warranties of merchantability or fitness for any particular purpose.

7.2.2 Save for any claim for damages arising from a breach of warranty in terms of this Agreement, and subject to clause 7.2.3, the Licensor shall not be liable for any loss or damage whatsoever or howsoever caused arising directly or indirectly in connection with the use, or licensing of the Intellectual Property Rights in any manner by the Licensee.

7.2.3 Save for any claim for damages arising from a breach of warranty in terms of this Agreement, neither Party will be liable to the other Party for any indirect, special, incidental or consequential loss or damage which may arise in respect of the Intellectual Property Rights, its use or in respect of loss of profit, business, revenue, goodwill or anticipated savings.

7.3 **Indemnity**

7.3.1 The Licensee hereby indemnifies the Licensor, to the fullest extent permitted in law, against all claims, costs, damages, losses and expenses which the Licensor may suffer arising from the use of the Intellectual Property Rights by the Licensee, any breach by the Licensee of its statutory obligations or any breach by the Licensee of its obligations as set forth in clause 10.

7.3.2 The Licensor hereby indemnifies and holds the Licensee harmless against all claims, costs, damages, losses and expenses which the Licensee may suffer or sustain as a direct result of any claim –

7.3.2.1 against the Licensee arising as a result of the failure of any warranty given in this Agreement to be true and correct;

7.3.2.2 that the conduct of the Licensee contemplated in this Agreement has resulted in an infringement of the intellectual property rights of any third party; or

7.3.2.3 that any third party has a prior right in respect of any of the Intellectual Property Rights.

7.3.3 The Licensee undertakes that it will not continue using the Technology and will cease producing, distributing, marketing and selling the Subject Isotope where these activities will increase the potential damages which the Parties could suffer as a result thereof, unless:

7.3.3.1 the Licensee is obligated to do so in terms of any agreement, or

7.3.3.2 the Independent Auditors confirm that the potential damages award will be less than potential profits from ongoing activities such that the risk is mitigated. The Independent Auditors shall act as experts and not as arbitrators, and their determination shall be final and binding on the Parties. The cost of the Independent Experts shall be borne equally by the Parties.

8 **FORCE MAJEURE**

8.1 Delay or failure to comply with or breach of any of the terms and conditions of this Agreement if occasioned by or resulting from an act of God or public enemy, fire, explosion, earthquake, perils of the sea, flood, storm or other adverse weather conditions, war declared or undeclared, civil war, revolution, civil commotion or other civil strife, riots, strikes, blockade, embargo, sanctions, epidemics, act of any government or other authority, compliance with government orders, demands or regulations, or any circumstances of like or different nature beyond the reasonable control of the Party so failing (“***force majeure*”),** will not be deemed to be a breach of this Agreement nor will it subject either Party to any liability to the other.

8.2 Should either Party be prevented from carrying out its contractual obligations by reason of *force majeure* lasting continuously for a period of 30 (thirty) days, the Parties will consult with each other regarding the future implementation of this Agreement. If no mutually acceptable arrangement is arrived at within a further period of 10 (ten) days after the expiration of such 30 (thirty) day period, either Party will be entitled to cancel this Agreement forthwith on written notice to the other Party.

9 **TERMINATION**

9.1 Either Party may terminate this Agreement with immediate effect upon written notice to the other Party in the event that -

9.1.1 the other Party commits an act of insolvency, is placed under business rescue or is wound-up (whether provisionally or finally);

9.1.2 the other Party ceases or threatens to cease to carry on business or disposes of its business or changes the fundamental nature of its business; or

9.1.3 there is a change of control of the other Party.

9.2 The Licensor may terminate this Agreement in the event the Licensee:

9.2.1 commits a material breach of the turnkey contract contemplated in the Term Sheet;

9.2.2 fails to purchase assets of Molybdos (Pty) Limited; or

9.2.3 has not produced, distributed, marketed and sold the Subject Isotope for a continuous period of 3 years once the turnkey contract contemplated by the Term Sheet has been successfully concluded.

9.3 Upon termination or cancellation of this Agreement for any reason whatsoever, the Licensee shall –

9.3.1 have no further right or entitlement to use all or any of the Intellectual Property Rights;

9.3.2 cease all use of the Intellectual Property Rights;

9.3.3 within 2 (two) weeks of such termination or cancellation, deliver to the Licensor all papers, correspondence, records, copies and other documents of every kind concerning or containing any reference to the Intellectual Property Rights;

9.3.4 at the election of the Licensor, either sell all stock of the Subject Isotope to the Licensor or destroy same;

9.3.5 cease any representations or claims and not hold forth in any manner whatsoever that the Licensee has or ever had any relationship with or connection to the Licensor.

10 **CONFIDENTIALITY AND PROTECTION OF INFORMATION**

10.1 Each Party undertakes that during the operation of, and after the expiration, termination or cancellation of, this Agreement for any reason, it will keep confidential all Confidential Information of the other Party.

10.2 If the receiving Party is uncertain about whether any information is to be treated as confidential in terms of this clause 10, it shall be obliged to treat it as such until written clearance is obtained from the disclosing Party.

10.3 Each Party undertakes, subject to clause 10.4, not to disclose any Confidential Information of the other Party, nor to use such information for its own or anyone else's benefit.

10.4 Notwithstanding the provisions of clause 10.3, the Licensee shall be entitled to disclose any information to be kept confidential if and to the extent only that the disclosure is bona fide and necessary for the purposes of using the Technology and producing, distributing, marketing and selling the Subject Isotope pursuant to this Agreement, and only if the party to whom the information is disclosed provides a written undertaking to both the Licensee and Licensor that such information shall be kept confidential.

10.5 The obligation of confidentiality placed on the receiving Party in terms of this clause 10 shall cease to apply to the receiving Party in respect of any information which –

10.5.1 is or becomes generally available to the public other than by the negligence or default of the receiving Party or by the breach of this Agreement by the receiving Party;

10.5.2 the disclosing Party confirms in writing is disclosed on a non-confidential basis;

10.5.3 has lawfully become known by or come into the possession of the receiving Party on a non-confidential basis from a source other than the disclosing Party having the legal right to disclose same, provided that such knowledge or possession is evidenced by the written records of the receiving Party existing at the Effective Date; or

10.5.4 is disclosed pursuant to a requirement or request by operation of law, regulation or court order, to the extent of compliance with such requirement or request only and not for any other purpose,

provided that –

10.5.5 the onus shall at all times rest on the receiving Party to establish that information falls within the exclusions set out in clauses 10.5.1 to 10.5.4;

10.5.6 information will not be deemed to be within the foregoing exclusions merely because such information is embraced by more general information in the public domain or in the receiving Party's possession; and

10.5.7 any combination of features will not be deemed to be within the foregoing exclusions merely because individual features are in the public domain or in the receiving Party's possession, but only if the combination itself and its principle of operation are in the public domain or in the receiving Party's possession.

10.6 In the event that the receiving Party is required to disclose Confidential Information as contemplated in clause 10.5.4, the receiving Party will –

10.6.1 advise the disclosing Party thereof in writing prior to disclosure, if possible;

10.6.2 take such steps to limit the disclosure to the minimum extent required to satisfy such requirement and to the extent that it lawfully and reasonably can;

10.6.3 afford the disclosing Party a reasonable opportunity, if possible, to intervene in the proceedings;

10.6.4 comply with the disclosing Party's reasonable requests as to the manner and terms of any such disclosure; and

10.6.5 notify the disclosing Party of, and the form and extent of, any such disclosure or announcement immediately after it is made.

10.7 All documentation concerning the Intellectual Property Rights remains the exclusive property of the Licensor and upon termination of this Agreement will be returned to the Licensor. The Licensee undertakes to prevent the unauthorised use of such documentation and will not make copies of any such documentation without the prior written consent of the Licensee.

11 **BREACH**

Should any Party ("**Defaulting Party**") commit a breach of any of the provisions of this Agreement, then the other Party ("**Aggrieved Party**"), shall be obliged to give the Defaulting Party 10 (ten) Business Days written notice or such longer period as may be reasonably required in the circumstances, to remedy the breach. If the Defaulting Party fails to comply with the notice, the Aggrieved Party shall be entitled to claim immediate payment and/or specific performance by the Defaulting Party of all the Defaulting Party's obligations without prejudice to the Aggrieved Party's rights to claim damages. The foregoing is without prejudice to any other rights as the Aggrieved Party may have at law, provided that the Aggrieved Party shall not be entitled to cancel this Agreement for any breach by the Defaulting Party.

12 **DISPUTE RESOLUTION**

12.1 The Parties agree that the terms of this Agreement will be performed in the spirit of mutual co-operation, trust and confidence. The Parties further agree to use their reasonable endeavours to resolve, through mutual consultation, without involving any third party or parties, any dispute which may arise under, out of, or in connection with or in relation to this Agreement. If following such mutual consultation, the dispute still remains outstanding, the matter shall be referred to the chief executive officer of each Party to the dispute or their respective representatives, who shall negotiate for a period of up to 5 (five) Business Days from the date of such referral in an attempt to resolve such dispute. If following the expiry of such 5 (five) Business Day period, the dispute is still unresolved, then, save where otherwise provided in this Agreement, the matter shall be referred to arbitration in accordance with the remaining provisions of this clause 12.

12.2 This clause 12 is a separate, divisible agreement from the rest of this Agreement and shall -

12.2.1 not be or become void, voidable or unenforceable by reason only of any alleged misrepresentation, mistake, duress, undue influence, impossibility (initial or supervening), illegality, immorality, absence of consensus, lack of authority or other cause relating in substance to the rest of the Agreement and not to this clause 12, which issue, the Parties intend, shall be subject to arbitration in terms of this clause 12; and

12.2.2 remain in effect even if the Agreement terminates or is cancelled.

12.3 Save to the extent to the contrary provided for in this Agreement, any dispute arising out of or in connection with this Agreement or the subject matter of this Agreement including, without limitation, any dispute concerning –

12.3.1 the existence of this Agreement apart from this clause 12;

12.3.2 the interpretation and effect of this Agreement;

12.3.3 the Parties' respective rights or obligations under this Agreement;

12.3.4 the rectification of this Agreement;

12.3.5 the breach, termination or cancellation of this Agreement or any matter arising out of such breach, termination or cancellation;

12.3.6 damages in contract, in delict, compensation for unjust enrichment; or

12.3.7 any other claim whether or not the rest of this Agreement apart from this clause 12 is valid and enforceable,

shall be decided by arbitration as set out in this clause 12.

12.4 The Parties to this dispute shall agree on the arbitrator. If agreement is not reached within 10 (ten) Business Days after any Party to the dispute in writing calls for agreement, the arbitrator shall be a practising commercial attorney or advocate of at least 10 (ten) years standing on the panel of arbitrators of the Arbitration Foundation of Southern Africa ("**AFSA**") nominated at the request of any Party to the dispute by the Registrar of AFSA for the time being.

12.5 The request to nominate an arbitrator shall be in writing outlining the claim and any counterclaim of which the Party to the dispute concerned is aware and, if desired, suggesting suitable nominees for appointment, and a copy shall be furnished to the other Parties to the dispute who may, within 5 (five) Business Days, submit written comments on the request to the addressor of the request.

12.6 The arbitration shall, unless otherwise agreed between the Parties to the dispute, be held in Johannesburg and the Parties shall endeavour to ensure that it is completed as soon as reasonably possible after notice requiring the claim to be referred to arbitration is given.

12.7 The proceedings in the arbitration shall as far as practicable take place in private and be kept confidential.

12.8 The arbitration shall be governed by the Arbitration Act, No. 42 of 1965, as amended, or any replacement act and shall take place in accordance with the Commercial Arbitration Rules of AFSA.

12.9 The decision resulting from such arbitration shall be subject to a right of appeal to a panel of 3 (three) arbitrators as provided for in the Commercial Arbitration Rules of AFSA whose decision shall, or, in the event that the single arbitrator's decision shall not have timeously been taken on appeal, the decision of the single arbitrator shall, in the absence of manifest error, be final and binding upon the Parties to the dispute, and may be made an order of any court of competent jurisdiction.

12.10 This clause 12 shall not preclude any Party to a dispute from obtaining interim relief on an urgent basis from a court of competent jurisdiction pending the decision of the arbitrator or panel of arbitrators, on appeal.

12.11 A written notice by any Party to the dispute requesting the nomination of an arbitrator, shall be deemed to be a legal process for the purpose of interrupting extinctive prescription in terms of the Prescription Act, No. 68 of 1969.

13 NOTICES AND *DOMICILIA*

13.1 The Parties choose as their *domicilia citandi et executandi* their respective addresses set out in this 13 for all purposes arising out of or in connection with this Agreement, at which addresses all the processes and notices arising out of or in connection with this Agreement, its breach or termination, may validly be served upon or delivered to the Parties.

13.2 For the purposes of this Agreement, the Parties' respective addresses shall be -

13.2.1 as regards the Licensor at Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184

facsimile number: (012) 349 2128

email address: carl.ronander@klydon.co.za

marked for the attention of: Dr E Ronander

13.2.2 as regards the Licensee at, Unit 19 2nd floor, 1 Melrose Boulevard, Melrose Arch, Gauteng, 2076

Email address:

robert.ainscow@pdsphotonica.com ; cc derrick.hyde@iqeq.com and geoff.miller@pdsphotonica.com

marked for the attention of: Mr Robert Ainscow

13.3 Any notice given in terms of this Agreement shall be in writing and shall -

13.3.1 if delivered by hand, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of delivery;

13.3.2 if transmitted by facsimile or email, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of despatch; and

13.3.3 if delivered by recognised international courier service, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of such delivery by the courier service concerned,

provided that the relevant notice is marked for the attention of the relevant Party's designated person for receipt of any processes and notices in connection with this Agreement as contemplated in 13.2.

13.4 Notwithstanding anything to the contrary contained in this Agreement, a written notice or communication actually received by the relevant Party's designated person for receipt of any processes and notices in connection with this Agreement as contemplated in 13.2 from another Party, shall be adequate written notice or communication to such Party.

14 **MISCELLANEOUS WARRANTY OF AUTHORITY**

14.1 **Warranty of authority**

Each Party warrants to each of the other Parties that it has the power, authority and legal right to sign and perform this Agreement and that this Agreement constitutes valid and binding obligations on it in accordance with the terms of this Agreement and, in respect of each Party that is a company, has been duly authorised by all necessary actions of its directors.

14.2 **Independent Advice**

Each Party hereto acknowledges that it has been free to secure independent legal advice as to the nature and effect of all of the provisions of this Agreement and that it has either taken such independent legal advice or dispensed with the necessity of doing so. Further, each Party hereto acknowledges that all of the provisions of this Agreement and the restrictions herein contained are fair and reasonable in all the circumstances and are part of the overall intention of the Parties in connection with the Company.

14.3 **Implementation**

The Parties undertake to do all such things, perform all such acts and take all steps to procure the doing of all such things and the performance of all such acts, as may be necessary or incidental to give or be conducive to the giving of effect to the terms, conditions and import of this Agreement.

14.4 **Payment**

14.4.1 Any payment payable in terms of this Agreement shall be net of any withholding taxes, other taxes, duties or levies, if any, payable in respect of such payment except to the extent that VAT is payable on such amount in which case the relevant amount shall include the relevant VAT amount.

14.4.2 Any amount not paid when due and payable under this Agreement shall bear interest at the Prime Rate from the due date to date of payment in full.

14.5 **Whole Agreement**

This Agreement constitutes the whole agreement between the Parties as to the subject matter hereof and no agreement, representations or warranties between the Parties other than those set out herein are binding on the Parties. This Agreement may only be varied by mutual written agreement.

14.6 **Variation**

No addition to or variation, consensual cancellation or novation of this Agreement and no waiver of any right arising from this Agreement or its breach or termination shall be of any force or effect unless reduced to writing and signed by each of the Parties or their duly authorised representatives.

14.7 **Relaxation**

No latitude, extension of time or other indulgence which may be given or allowed by either Party to the other Party in respect of the performance of any obligation hereunder or enforcement of any right arising from this Agreement and no single or partial exercise of any right by either Party shall under any circumstances be construed to be an implied consent by such Party or operate as a waiver or a novation of, or otherwise affect any of that Party's rights in terms of or arising from this Agreement or estop such Party from enforcing, at any time and without notice, strict and punctual compliance with each and every provision or term hereof.

14.8 **Counterparts**

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be taken together and deemed to be one instrument.

Signed at Pretoria on this the 30th day of September 2021

/s/ H.J. Strydom For: **Klydon (PTY) Limited**
Duly Authorised

Name: H.J. Strydom

Designation: CEO

Signed at Pretoria on this the 30th day of September 2021

/s/ Robert Ainscow For: **PDS Photonica South Africa (PTY) Limited**
Duly Authorised

Name: Robert Ainscow

Designation: Director

AMENDMENT TO LICENCE AGREEMENT

This Amendment to Licence Agreement is made and entered into between -

(1) **Klydon (PTY) Limited** of Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184 (Registration Number 1997/109687/07) ("**Licensor**"); and

(2) **ASP Isotopes South Africa (PTY) Limited** (formerly, PDS Photonica Holdings South Africa Proprietary Limited) of Unit 19 2nd floor, 1 Melrose Boulevard, Melrose Arch, Gauteng, 2076 (2021/701779/07) ("**Licensee**").

RECITALS

A. Licensor and Licensee have entered into a Licence Agreement, dated as of September 30 (the "**Existing Licence Agreement**").

B. Licensor and Licensee desire to amend the Existing Licence Agreement to change the meaning of the defined term "Territory" and remove and replace the termination provisions, on the terms and subject to the conditions set forth herein.

C. Pursuant to clauses 14.5 and 14.6 of the Existing Licence Agreement, the amendments contemplated by the parties must be contained in a written agreement signed by each of the parties or their duly authorised representatives.

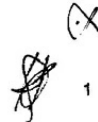
The Parties agree as follows:

1 **DEFINITIONS AND INTERPRETATION**

Capitalized terms used and not defined in this Amendment have the respective meanings assigned to them in the Existing Licence Agreement.

2 **AMENDMENTS TO THE EXISTING LICENCE AGREEMENT**

As of the Amendment Effective Date (defined below), the Existing Licence Agreement is hereby amended or modified as follows:



2.1 The definition of "Territory" now appearing in Section 1.1.20 of the Existing Licence Agreement is hereby deleted in its entirety and replaced with the following:

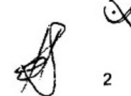
> "**Territory**" means globally for the development of the Technology and production of the Mo-100 isotope; and globally for the distribution, marketing and sale of that Mo-100 isotope;

2.2 Section 9 (Termination) of the Existing Licence Agreement is hereby deleted in its entirety and replaced as follows:

> 9. **TERMINATION OF EXCLUSIVITY**
>
> 9.1. The Licensor may terminate the exclusivity of the licence pursuant to this Agreement with immediate effect upon written notice to the other Party in the event that the other Party ceases to carry on activities of Molybdenum enrichment for a period longer than 24 consecutive months

3 **DATE OF EFFECTIVENESS; LIMITED EFFECT.**

This Amendment to Licence Agreement will become effective when both the parties have signed it. The date this Amendment to Licence Agreement is signed by the last party to sign it (as indicated by the date associated with that party's signature) will be deemed the date of this agreement (the "**Amendment Effective Date**"). Except as expressly provided in this Amendment, all of the terms and provisions of the Existing Licence Agreement are and will remain in full force and effect and are hereby ratified and confirmed by the Parties. Without limiting the generality of the foregoing, the amendments contained herein will not be construed as an amendment to or waiver of any other provision of the Existing Licence Agreement or as a waiver of or consent to any further or future action on the part of either Party that would require the waiver or consent of the other Party. On and after the Effective Date, each reference in the Existing Licence Agreement to "this Agreement," "the Agreement," "hereunder," "hereof," "herein," or words of like import, and each reference to the Existing Licence Agreement in any other agreements, documents, or instruments executed and delivered pursuant to, or in connection with, the Existing Licence Agreement, will mean and be a reference to the Existing Licence Agreement as amended by this *Amendment to Licence Agreement*.



4 MISCELLANEOUS WARRANTY OF AUTHORITY

4.1 Warranty of Authority

Each Party warrants to each of the other Parties that it has the power, authority and legal right to sign and perform this Amendment to Licence Agreement and that this Amendment to Licence Agreement constitutes valid and binding obligations on it in accordance with the terms of this Amendment to Licence Agreement and, in respect of each Party that is a company, has been duly authorised by all necessary actions of its directors.

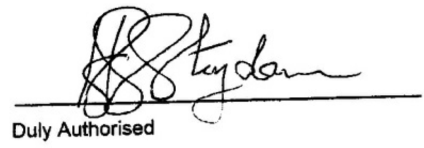
4.2 Independent Advice

Each Party hereto acknowledges that it has been free to secure independent legal advice as to the nature and effect of all of the provisions of this Amendment to Licence Agreement and that it has either taken such independent legal advice or dispensed with the necessity of doing so. Further, each Party hereto acknowledges that all of the provisions of this Amendment to Licence Agreement and the restrictions herein contained are fair and reasonable in all the circumstances and are part of the overall intention of the Parties in connection with the Company.

4.3 Counterparts

This Amendment to Licence Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be taken together and deemed to be one instrument.

Signed at PRETORIA on this the 8th day of JUNE 2022



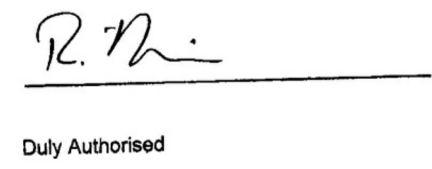
Duly Authorised

For: Klydon (PTY) Limited

Name: H.J. STRYDOM

Designation: CEO

Signed at London on this the 9th day of June 2022

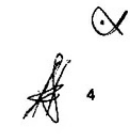


For: **ASP Isotopes South Africa (PTY) Limited**

Duly Authorised

Name: Robert Ainscow

Designation: Director



4

Exhibit 10.11

LICENSE AGREEMENT

between

Klydon (PROPRIETARY) LIMITED
(Registration Number 1997/019687/07)

and

ASP Isotopes South Africa (PROPRIETARY) LIMITED
(Registration Number 2021/701779/07)

INDEX

NO	CLAUSE HEADING	PAGE
1	DEFINITIONS AND INTERPRETATION	1
1.1	Definitions	1
1.2	Interpretation	4
2	GRANT OF LICENCE	4
3	EXCLUSIVITY AND LICENCE RESTRICTIONS	4
4	DURATION	5
5	INTELLECTUAL PROPERTY RIGHTS AND IMPROVEMENTS	5
5.1	Intellectual Property Rights	5
5.2	Improvement	6
6	TECHNICAL INFORMATION AND QUALITY CONTROL	7
6.1	Technical Information and Assistance	7
6.2	Quality control	8
7	PAYMENTS	8
7.1	Upfront Payment	8
7.2	Royalties and Sublicensing Revenue	8
8	WARRANTIES, EXCLUSION OF LIABILITY AND INDEMNITY	9
8.1	Warranties	9
8.3	Indemnity	10
9	FORCE MAJEURE	10
10	TERMINATION OF EXCLUSIVITY	11
11	CONFIDENTIALITY AND PROTECTION OF INFORMATION	11
12	BREACH	12
13	DISPUTE RESOLUTION	12
14	NOTICES AND *DOMICILIA*	14
15	MISCELLANEOUS WARRANTY OF AUTHORITY	14
15.1	Warranty of Authority	14
15.2	Independent Advice	15
15.3	Implementation	15
15.4	Payment	15
15.5	Whole Agreement	15
15.6	Variation	15
15.7	Relaxation	15
15.8	Counterparts	15

LICENCE AGREEMENT

This Agreement is made and entered into between -

(1) **Klydon (PTY) Limited** of Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184 (Registration Number 1997/109687/07) ("**Licensor**"); and

(2) **ASP Isotopes South Africa (PTY) Limited** of Unit 19 2nd floor , 1 Melrose Boulevard, Melrose Arch, Gauteng, 2076 (2021/701779/07) ("**Licensee**").

RECITALS

A. Licensor owns certain Intellectual Property, and has the right to grant a licence to use and exploit the Intellectual Property.

B. Licensor has agreed to grant Licensee the exclusive right to use the Intellectual Property Rights in the Territory to meet this obligation.

C. The Licensee wishes to acquire from the Licensor the exclusive right to use the Intellectual Property Rights in respect of the Technology to develop it and produce the uranium isotope U-235 and distribute, market and sell that U-235 isotope.

The Parties agree as follows:

1 **DEFINITIONS AND INTERPRETATION**

1.1 **Definitions**

In this Agreement and the recitals, unless clearly inconsistent with or otherwise indicated by the context -

1.1.1 "**Agreement**" means the agreement set out in this document and the appendices hereto;

1.1.2 "**Confidential Information**" means all and any information or data in whatever form (including in oral, written, electronic and visual form) relating to a Party or the Technology which by its nature or content is identifiable as, or could reasonably be expected to be, confidential and/or proprietary to either Party and includes, (even if not marked as being confidential, restricted, secret, proprietary or any similar designation), any and all information in respect of the Technology;

1.1.3 "**Copyright**" means copyright in the Territory in respect of the Technology;

1.1.4 "**Designs**" means any registered designs and design applications in respect of the Technology;

1.1.5 "**Effective Date**" means immediately after the termination of the API License;

1.1.6 "**Improvement**" means any change, development, improvement or modification to any aspect of the Intellectual Property Rights, the Technology or any method of development of the Technology, use or application of the Technology including any change, improvement or modification which makes the Technology more efficient or adaptable or enables the Technology to be manufactured more economically or efficiently or to a higher standard;

1.1.7 "**Independent Auditors**" means such independent auditors as may be agreed between the Licensor and the Licensee, or failing agreement within 10 (ten) business days from the date of a request by any Party for such agreement, appointed by the Executive President for the time being of the South African Institute of Chartered Accountants from one of the 4 (four) largest (based on number of partners) independent firms of auditors in South Africa at the time;

1.1.8 "**Intellectual Property Rights**" means all existing and future proprietary rights of the Licensor relating to the Technology, whether or not such rights have been registered, including the –

1.1.8.1 Copyright;

1.1.8.2 Designs;

1.1.8.3 Know-how;

1.1.8.4 Patents; and

1.1.8.5 Trade Marks.

1.1.9 "**Know-how**" means all information and knowledge of whatever nature relating to the manufacture, distribution, marketing, use and/or sale of the Technology owned or controlled by the Licensor, including technical information, production data, drawings, specifications, engineering and scientific information, manufacturing and tooling information, testing and quality control procedures, secret processes, formulae, marketing and application information and other Confidential Information;

1.1.10 "**Licensee**" means ASP Isotopes South Africa (Pty) Ltd (Registration Number 2021/701779/07), a company duly registered and incorporated with limited liability in accordance with the laws of the Republic of South Africa, herein represented by Mr. Paul Mann;

1.1.11 "**Licensor**" means Klydon (Proprietary) Limited (Registration Number 1997/109687/07), a company duly registered and incorporated with limited liability in accordance with the laws of the Republic of South Africa, herein represented by Dr Einar Ronander (ID Number 500609073088), he being duly authorised thereto;

1.1.12 "**Parties**" means the Licensor and Licensee and "**Party**" shall mean either one of them as the context requires;

1.1.13 "**Patents**" means any registered patents and patent applications in respect of the Technology;

1.1.14 "**Prime Rate**" means the publicly quoted basic rate of interest, compounded monthly in arrears and calculated on a 365 (three hundred and sixty five) day year irrespective of whether or not the year is a leap year, from time to time published by the Licensor's bankers from time to time as being its prime overdraft rate, as certified by any representative of that bank whose appointment and designation it will not be necessary to prove;

1.1.15 "**Quarterly Period**" means each period of three (3) consecutive months ending on March 31, June 30, September 30, and December 31, and each successive three (3) month period thereafter.

1.1.16 "**Subject Isotope**" means the U-235 isotope produced using the Technology;

1.1.17 **"Technology"** means the Aerodynamic Separation Process (ASP) Technology that is able to separate the isotopes of Uranium;

1.1.18 **"Term"** means a period of 999 (nine hundred and ninety nine) years, unless this Agreement is terminated in accordance with its terms;

1.1.19 "**Territory**" means global for the development of the Technology and production of the Subject Isotope; and globally for the distribution, marketing and sale of that Subject Isotope; and

1.1.20 "**Trade Marks**" means the registered trade marks, trade mark applications and/or common law trade marks in respect of the Technology.

1.2 **Interpretation**

1.2.1 In this Agreement and the recitals, unless clearly inconsistent with or otherwise indicated by the context -

1.2.1.1 any reference to the singular includes the plural and *vice versa*;

1.2.1.2 any reference to natural persons includes legal persons and *vice versa*; and

1.2.1.3 any reference to a gender includes the other genders.

1.2.2 Where appropriate, meanings ascribed to defined words and expressions in 1.1, shall impose substantive obligations on the Parties.

1.2.3 The clause headings in this Agreement have been inserted for convenience only and shall not be taken into account in its interpretation.

1.2.4 Words and expressions defined in any sub-clause shall, for the purposes of the clause of which that sub-clause forms part, bear the meanings assigned to such words and expressions in that sub-clause.

1.2.5 This Agreement shall be governed by and construed and interpreted in accordance with the law of the Republic of South Africa.

2 **GRANT OF LICENCE**

The Licensor hereby gives and grants to the Licensee, which hereby accepts, an exclusive licence to use, sub contract and sub license the Intellectual Property Rights during the Term for the development and/or otherwise disposing of the Technology and production, distribution, marketing and or sale of the Subject Isotope in the Territory.

3 **EXCLUSIVITY AND LICENCE RESTRICTIONS**

3.1 Exclusivity

The licence granted by the Licensor under this Agreement is exclusive, such that, whilst this Agreement remains in force, the Licensor shall not be entitled, directly or indirectly, to use, grant or otherwise give any rights (similar to which are granted to this Licensee and/or different rights) to any other party for use within the Territory.

Licence Restrictions

3.1.1 Whilst this Agreement remains in force, The Licensee will not produce, distribute, market and/or sell any isotopes except the Subject Isotope, unless the Licensee acquires the right for production and distribution of other isotopes from the Licensor.

3.1.2 The degree of isotopic enrichment of the Subject Isotope is limited to be smaller than 20%.

3.1.3 The Licensee will not, without the prior written consent of the Licensor, use the trade names of the Licensor or Trade Marks in combination with any other trade names or trade marks, nor use trade names, symbols or letters which are confusingly similar to the trade names or Trade Marks.

4 **DURATION**

4.1 This Agreement shall commence on the Effective Date and shall continue in full force for the Term.

4.2 The duration of this Agreement shall not be affected by –

4.2.1 the lapsing of one or more of the Intellectual Property Rights, whether by effluxion of time or otherwise; and

4.2.2 any Patent, Design or Trade Mark comprising the Intellectual Property Rights failing to proceed to grant or final prosecution or being held to be invalid.

5 **INTELLECTUAL PROPERTY RIGHTS AND IMPROVEMENTS**

5.1 **Intellectual Property Rights**

5.1.1 The Licensee acknowledges and agrees that the Intellectual Property Rights are and shall remain the sole and absolute property of the Licensor and further acknowledges that the reputational use thereof in terms of this Agreement shall enure for the benefit of the Licensor.

5.1.2 The Licensee shall not anywhere in the world, whether during or after the period of currency of this Agreement -

5.1.2.1 oppose or contest any intellectual property application by the Licensor or the ownership of the Licensor therein;

5.1.2.2 dispute, contest or question the validity of the Intellectual Property Rights and shall not assist or counsel any other person to do so;

5.1.2.3 directly or indirectly register the Trade Marks, or any confusingly similar trade marks, anywhere in the Territory; or

5.1.2.4 directly or indirectly use any trade marks confusingly similar to the Trade Marks anywhere in the Territory.

5.1.3 No right, title or interest in and to the Intellectual Property Rights is hereby transferred except the right to use the Intellectual Property Rights during the Term of this Agreement in the manner and subject to the terms and conditions set out in this Agreement. The Licensor shall have no right to sell, assign, transfer, alienate, hire, lease, pledge, hypothecate, otherwise dispose of or encumber or to reproduce the whole or any part of the Intellectual Property Rights without the specific prior written consent of the Licensee which consent shall not unreasonably be withheld.

5.1.4 The Licensee shall not in any way represent that it has any rights of any nature in and to the Intellectual Property Rights, other than those which it enjoys in terms of this Agreement. The Licensee shall only use the Intellectual Property Rights in respect of the Technology, as permitted by this Agreement.

5.1.5 The Licensor shall have the right from time to time to lay down in writing or otherwise reasonable standard and/or specific procedures for the use of the Intellectual Property Rights and from time to time to add to, amend, vary, supplement, change, alter or repeal such standard and/or specific procedures on reasonable notice to the Licensee.

5.1.6 The Licensee shall not do or cause to be done any act or thing contesting or in any way impairing or tending to impair any part of the Licensor's exclusive right, title and interest in and to the Intellectual Property Rights.

5.1.7 The Licensee undertakes to use its reasonable endeavours to ensure that the reputation and goodwill of the Intellectual Property Rights are protected, maintained and wherever possible enhanced.

5.1.8 The prosecution and/or defence of any claim in relation to the Intellectual Property Rights shall be the sole responsibility and shall be undertaken within the sole and absolute discretion of the Licensor, provided that the Licensee shall forthwith notify the Licensor of any claims or possible infringements of the Intellectual Property Rights of which the Licensee becomes aware and the Licensee shall, if required by the Licensor and at the Licensor's cost, join with the Licensor as a party to such proceedings, and/or assist the Licensor in any such proceedings in the manner and to the extent reasonably required by the Licensor. The Licensee shall not be entitled to make any admissions of liability in regard to any such claim or to negotiate any settlement in respect thereof without the specific prior written consent of the Licensor. Notwithstanding the aforesaid, the Licensee shall be entitled to defend any claim as contemplated in this clause 5.1.8 if the Licensor fails to take any steps in relation to such claim.

5.1.9 The Licensor shall, at the Licensor's expense maintain all statutory registrations of any item of the Intellectual Property Rights in force and the Licensor shall pay all renewal and any other fees necessary for this purpose. Notwithstanding the aforesaid, the Licensee shall have the right to make any such payment and recover the payment from the Licensor if the Licensor fails to make any such payments.

5.2 **Improvement**

If at any time during the Term of this Agreement –

5.2.1 the Licensor makes, or receives the benefit of any Improvement or Know-how to the Technology, the Licensor undertakes to inform the Licensee of such Improvement or Know-how and the Licensee may make use of such Improvement or Know-how for the purposes of this Agreement. If such Improvement involves additions to the Know-how, such additions will also be deemed to be part of the Intellectual Property Rights licensed in terms of this Agreement; and

5.2.2 the Licensee makes any Improvement to the Technology, the Licensee will promptly inform the Licensor thereof in writing and hereby assigns, free of compensation or other claim, all rights in such Improvement to the Licensor and will assist the Licensor, at the Licensor's cost, to obtain patent, design, trade mark, copyright and all similar forms of protection for such Improvement at the expense of the Licensor. The Licensee may make use of such Improvements for the purposes of this Agreement.

6 **TECHNICAL INFORMATION AND QUALITY CONTROL**

6.1 **Technical Information and Assistance**

6.1.1 The Licensor shall on the Effective Date and during the Term supply, free of charge, to the Licensee -

6.1.1.1 copies of all such documents containing technical information as may be required or necessary to enable the Licensee to use the Intellectual Property Rights for the development and/or otherwise disposing of the Technology and production, distribution, marketing and or sale of the Subject Isotope in the Territory; and

6.1.1.2 such further information and Know-how relating generally to the materials, methods and processes required by the Licensor for the development of the Technology and production, distribution, marketing and or sale of the Subject Isotope in the Territory..

6.1.2 The Licensor shall –

6.1.2.1 provide, sufficient adequately skilled technical staff able to provide technical assistance to the Licensee in establishing the plant and production facilities necessary to develop the Technology and produce, distribute, market and sale of the Subject Isotope;

6.1.2.2 advise the Licensee on all matters relating to the purchase of suitable plant, machinery, tools, fixtures and fittings necessary to establish plant and production facilities;

6.1.2.3 advise the Licensee on matters relating to the purchase of suitable sources of raw materials necessary for the use of the Technology;

6.1.2.4 for the Term of this Agreement provide ongoing technical expertise, support, assistance and advice to the Licensee for the purpose of enabling the Licensee to develop the Technology and to produce, distribute, market and sale of the Subject Isotope. The Licensor will, at the reasonable request of the Licensee make available, for such period as the Licensor in its sole reasonable discretion may determine, technical and other staff for the purposes of fulfilling the Licensor's obligations in terms hereof;

6.1.2.5 provide the Licensee with such assistance as the Licensee may reasonably require, at no charge to the Licesee, to obtain any regulatory approvals as may be required for the Licensee to use the Technology and to produce, distribute, market and sell the Subject Isotope.

6.1.3 It is expressly recorded that the Licensor shall not be responsible or liable for consequential damages or loss of profit which might arise out of the use by the Licensee of any technical information or advice furnished to the Licensee hereunder, unless Licensee can prove on a balance of probabilities that the technical information or advice was wrong or misleading, and that an expert in the field would have known it to be wrong or misleading.

6.2 **Quality control**

The Licensee shall –

6.2.1 use the Technology and produce, distribute and market the Subject Isotope strictly in accordance with the specifications and quality standards from time to time prescribed by the Licensor;

6.2.2 ensure that the highest standards of workmanship and material available are employed in the use of the Technology and the production of the Subject Isotope; and

6.2.3 upon receipt of reasonable notice, permit the Licensor's duly authorised representatives at all reasonable times to enter the premises where the Technology is being used, or the Subject Isotope is being produced in order to ascertain whether the Licensor's quality control standards are being adhered to and for this purpose will also have the right to take necessary samples of the Subject Isotope for examination, testing and analysis.

7 **PAYMENTS**

7.1 **Upfront Payment**

7.1.1 In consideration of the rights and licenses granted under this Agreement, Licensee shall pay to Licensor, concurrently with the execution of this Agreement, an initial payment of One Hundred Thousand US Dollars (US$100,000) (the "**Upfront Payment**") by wire transfer to a bank account to be designated in writing by Licensor. The Upfront Payment is not refundable and is in addition to and not a prepayment of any Royalties, Minimum Royalties, or any other sums payable to Licensor under this Agreement.

7.2 **Royalties and Sublicensing Revenue**

7.2.1 In consideration of the rights and licenses granted under this Agreement, Licensee shall pay to Licensor a royalty which will be the greater of (a) Fifty US Dollars (US$50) per Kg of Subject Isotope sold in the Territory and (b) ten percent (10%) of profits from the Subject Isotope sold in the Territory ("**Royalty**") during the Term.

7.2.2 Licensee may grant sublicenses under the rights and licenses granted under this Agreement to third parties. Licensee shall pay to Licensor thirty three percent (33%) ("**Sublicensing Revenue Share**") of any and all cash consideration, including upfront payments, fixed or periodic fees and milestone fees, received by Licensee for any sublicenses granted pursuant hereto.

7.2.3 Licensee shall pay all Royalties and Sublicensing Revenue Share, and any other sums payable under this Agreement for each Quarterly Period within twenty (20) Business Days of the end of such Quarterly Period. Licensee shall make all payments in US dollars by wire transfer of immediately available funds to a bank account to be designated in writing by Licensor.

8 **WARRANTIES, EXCLUSION OF LIABILITY AND INDEMNITY**

8.1 **Warranties**

8.1.1 The Licensor warrants that, as at the Effective Date and on each day during the Term–

8.1.1.1 it is the sole beneficial owner of the Intellectual Property Rights and that it has the right to licence the Intellectual Property Rights in the Territory;

8.1.1.2 it is free to grant the licence conferred by this Agreement including that it is not prohibited by an regulation or law in granting this license and acting pursuant to this Agreement, and that it has not granted any other licence to the Intellectual Property Rights in the Territory;

8.1.1.3 the Intellectual Property Rights are valid, enforceable and unencumbered;

8.1.1.4 the Intellectual Property Rights and the use thereof does not infringe the intellectual property rights of any third party;

8.1.1.5 it's rights in and to the Intellectual Property Rights have not been contested, in whole or in part, by anyone whomsoever;

8.1.1.6 it has no knowledge of any circumstances or facts that might render the Intellectual Property Rights invalid, unenforceable, or encumbered; and

8.1.1.7 it has not taken any action or omitted to take any action as a result of which the Intellectual Property Rights or any part thereof could become unenforceable.

8.1.2 The Licensee expressly acknowledges that under this Agreement the Licensor does not in any way warrant or guarantee either expressly or impliedly the merchantability or fitness of the Technology or the Subject Isotope.

8.2 **Exclusion of liability**

8.2.1 Subject to this Agreement and to the extent permitted by applicable law, the Licensor disclaims all warranties and representations, either express or implied with respect to the Intellectual Property Rights, including but not limited to any implied warranties of merchantability or fitness for any particular purpose.

8.2.2 Save for any claim for damages arising from a breach of warranty in terms of this Agreement, and subject to clause 8.2.3, the Licensor shall not be liable for any loss or damage whatsoever or howsoever caused arising directly or indirectly in connection with the use, or licensing of the Intellectual Property Rights in any manner by the Licensee.

8.2.3 Save for any claim for damages arising from a breach of warranty in terms of this Agreement, neither Party will be liable to the other Party for any indirect, special, incidental or consequential loss or damage which may arise in respect of the Intellectual Property Rights, its use or licensing or in any manner by the other Party.

8.3 **Indemnity**

8.3.1 The Licensee hereby indemnifies the Licensor, to the fullest extent permitted in law, against all claims, costs, damages, losses and expenses which the Licensor may suffer arising from the use of the Intellectual Property Rights by the Licensee, any breach by the Licensee of its statutory obligations or any breach by the Licensee of its obligations as set forth in clause 11.

8.3.2 The Licensor hereby indemnifies and holds the Licensee harmless against all claims, costs, damages, losses and expenses which the Licensee may suffer or sustain as a direct result of any claim –

8.3.2.1 against the Licensee arising as a result of the failure of any warranty given in this Agreement to be true and correct;

8.3.2.2 that the conduct of the Licensee contemplated in this Agreement has resulted in an infringement of the intellectual property rights of any third party; or

8.3.2.3 that any third party has a prior right in respect of any of the Intellectual Property Rights.

8.3.3 The Licensee undertakes that it will not continue using the Technology and will cease producing, distributing, marketing and selling the Subject Isotope where these activities will increase the potential damages which the Parties could suffer as a result thereof, unless:

8.3.3.1 the Licensee is obligated to do so in terms of any agreement, or

8.3.3.2 the Independent Auditors confirm that the potential damages award will be less than potential profits from ongoing activities such that the risk is mitigated. The Independent Auditors shall act as experts and not as arbitrators, and their determination shall be final and binding on the Parties. The cost of the Independent Experts shall be borne equally by the Parties.

9 **FORCE MAJEURE**

9.1 Delay or failure to comply with or breach of any of the terms and conditions of this Agreement if occasioned by or resulting from an act of God or public enemy, fire, explosion, earthquake, perils of the sea, flood, storm or other adverse weather conditions, war declared or undeclared, civil war, revolution, civil commotion or other civil strife, riots, strikes, blockade, embargo, sanctions, epidemics, act of any government or other authority, compliance with government orders, demands or regulations, or any circumstances of like or different nature beyond the reasonable control of the Party so failing ("***force majeure***"), will not be deemed to be a breach of this Agreement nor will it subject either Party to any liability to the other.

9.2 Should either Party be prevented from carrying out its contractual obligations by reason of*force majeure* lasting continuously for a period of 30 (thirty) days, the Parties will consult with each other regarding the future implementation of this Agreement. If no mutually acceptable arrangement is arrived at within a further period of 10 (ten) days after the expiration of such 30 (thirty) day period, either Party will be entitled to cancel this Agreement forthwith on written notice to the other Party.

10 **TERMINATION OF EXCLUSIVITY**

10.1 The Licensor may terminate the exclusivity of this Agreement with immediate effect upon written notice to the Licensee in the event that the Licensee ceases to carry on activities of Uranium enrichment for period longer than 24 consecutive months (except for reasons of extended force majeure or circumstances beyond the Licensee's control).

11 **CONFIDENTIALITY AND PROTECTION OF INFORMATION**

11.1 Each Party undertakes that during the operation of, and after the expiration, termination or cancellation of, this Agreement for any reason, it will keep confidential all Confidential Information of the other Party.

11.2 If the receiving Party is uncertain about whether any information is to be treated as confidential in terms of this clause 11, it shall be obliged to treat it as such until written clearance is obtained from the disclosing Party.

11.3 Each Party undertakes, subject to clause 11.4, not to disclose any Confidential Information of the other Party, nor to use such information for its own or anyone else's benefit.

11.4 Notwithstanding the provisions of clause 11.3, the Licensee shall be entitled to disclose any information to be kept confidential if and to the extent only that the disclosure is *bona fide* and necessary for the purposes of using the Technology and producing, distributing, marketing and selling the Subject Isotope pursuant to this Agreement, and only if the party to whom the information is disclosed provides a written undertaking to both the Licensee and Licensor that such information shall be kept confidential.

11.5 The obligation of confidentiality placed on the receiving Party in terms of this clause 11 shall cease to apply to the receiving Party in respect of any information which –

11.5.1 is or becomes generally available to the public other than by the negligence or default of the receiving Party or by the breach of this Agreement by the receiving Party;

11.5.2 the disclosing Party confirms in writing is disclosed on a non-confidential basis;

11.5.3 has lawfully become known by or come into the possession of the receiving Party on a non-confidential basis from a source other than the disclosing Party having the legal right to disclose same, provided that such knowledge or possession is evidenced by the written records of the receiving Party existing at the Effective Date; or

11.5.4 is disclosed pursuant to a requirement or request by operation of law, regulation or court order, to the extent of compliance with such requirement or request only and not for any other purpose,

provided that –

11.5.5 the onus shall at all times rest on the receiving Party to establish that information falls within the exclusions set out in clauses 11.5.1 to 11.5.4;

11.5.6 information will not be deemed to be within the foregoing exclusions merely because such information is embraced by more general information in the public domain or in the receiving Party’s possession; and

11.5.7 any combination of features will not be deemed to be within the foregoing exclusions merely because individual features are in the public domain or in the receiving Party’s possession, but only if the combination itself and its principle of operation are in the public domain or in the receiving Party’s possession.

11.6 In the event that the receiving Party is required to disclose Confidential Information as contemplated in clause 11.5.4, the receiving Party will –

11.6.1 advise the disclosing Party thereof in writing prior to disclosure, if possible;

11.6.2 take such steps to limit the disclosure to the minimum extent required to satisfy such requirement and to the extent that it lawfully and reasonably can;

11.6.3 afford the disclosing Party a reasonable opportunity, if possible, to intervene in the proceedings;

11.6.4 comply with the disclosing Party’s reasonable requests as to the manner and terms of any such disclosure; and

11.6.5 notify the disclosing Party of, and the form and extent of, any such disclosure or announcement immediately after it is made.

11.7 All documentation concerning the Intellectual Property Rights remains the exclusive property of the Licensor and upon termination of this Agreement will be returned to the Licensor. The Licensee undertakes to prevent the unauthorised use of such documentation and will not make copies of any such documentation without the prior written consent of the Licensee.

12 **BREACH**

Should any Party (“**Defaulting Party**”) commit a breach of any of the provisions of this Agreement, then the other Party (“**Aggrieved Party**”), shall be obliged to give the Defaulting Party 10 (ten) Business Days written notice or such longer period as may be reasonably required in the circumstances, to remedy the breach. If the Defaulting Party fails to comply with the notice, the Aggrieved Party shall be entitled to claim immediate payment and/or specific performance by the Defaulting Party of all the Defaulting Party’s obligations without prejudice to the Aggrieved Party’s rights to claim damages. The foregoing is without prejudice to any other rights as the Aggrieved Party may have at law, provided that the Aggrieved Party shall not be entitled to cancel this Agreement for any breach by the Defaulting Party.

13 **DISPUTE RESOLUTION**

13.1 The Parties agree that the terms of this Agreement will be performed in the spirit of mutual co-operation, trust and confidence. The Parties further agree to use their reasonable endeavours to resolve, through mutual consultation, without involving any third party or parties, any dispute which may arise under, out of, or in connection with or in relation to this Agreement. If following such mutual consultation, the dispute still remains outstanding, the matter shall be referred to the chief executive officer of each Party to the dispute or their respective representatives, who shall negotiate for a period of up to 5 (five) Business Days from the date of such referral in an attempt to resolve such dispute. If following the expiry of such 5 (five) Business Day period, the dispute is still unresolved, then, save where otherwise provided in this Agreement, the matter shall be referred to arbitration in accordance with the remaining provisions of this clause 13.

13.2 This clause 13 is a separate, divisible agreement from the rest of this Agreement and shall -

13.2.1 not be or become void, voidable or unenforceable by reason only of any alleged misrepresentation, mistake, duress, undue influence, impossibility (initial or supervening), illegality, immorality, absence of consensus, lack of authority or other cause relating in substance to the rest of the Agreement and not to this clause 13, which issue, the Parties intend, shall be subject to arbitration in terms of this clause 13; and

13.2.2 remain in effect even if the Agreement terminates or is cancelled.

13.3 Save to the extent to the contrary provided for in this Agreement, any dispute arising out of or in connection with this Agreement or the subject matter of this Agreement including, without limitation, any dispute concerning –

13.3.1 the existence of this Agreement apart from this clause 13;

13.3.2 the interpretation and effect of this Agreement;

13.3.3 the Parties’ respective rights or obligations under this Agreement;

13.3.4 the rectification of this Agreement;

13.3.5 the breach, termination or cancellation of this Agreement or any matter arising out of such breach, termination or cancellation;

13.3.6 damages in contract, in delict, compensation for unjust enrichment; or

13.3.7 any other claim whether or not the rest of this Agreement apart from this clause 13 is valid and enforceable,

shall be decided by arbitration as set out in this clause 13.

13.4 The Parties to this dispute shall agree on the arbitrator. If agreement is not reached within 10 (ten) Business Days after any Party to the dispute in writing calls for agreement, the arbitrator shall be a practising commercial attorney or advocate of at least 10 (ten) years standing on the panel of arbitrators of the Arbitration Foundation of Southern Africa ("**AFSA**") nominated at the request of any Party to the dispute by the Registrar of AFSA for the time being.

13.5 The request to nominate an arbitrator shall be in writing outlining the claim and any counterclaim of which the Party to the dispute concerned is aware and, if desired, suggesting suitable nominees for appointment, and a copy shall be furnished to the other Parties to the dispute who may, within 5 (five) Business Days, submit written comments on the request to the addressor of the request.

13.6 The arbitration shall, unless otherwise agreed between the Parties to the dispute, be held in Johannesburg and the Parties shall endeavour to ensure that it is completed as soon as reasonably possible after notice requiring the claim to be referred to arbitration is given.

13.7 The proceedings in the arbitration shall as far as practicable take place in private and be kept confidential.

13.8 The arbitration shall be governed by the Arbitration Act, No. 42 of 1965, as amended, or any replacement act and shall take place in accordance with the Commercial Arbitration Rules of AFSA.

13.9 The decision resulting from such arbitration shall be subject to a right of appeal to a panel of 3 (three) arbitrators as provided for in the Commercial Arbitration Rules of AFSA whose decision shall, or, in the event that the single arbitrator's decision shall not have timeously been taken on appeal, the decision of the single arbitrator shall, in the absence of manifest error, be final and binding upon the Parties to the dispute, and may be made an order of any court of competent jurisdiction.

13.10 This clause 13 shall not preclude any Party to a dispute from obtaining interim relief on an urgent basis from a court of competent jurisdiction pending the decision of the arbitrator or panel of arbitrators, on appeal.

13.11 A written notice by any Party to the dispute requesting the nomination of an arbitrator, shall be deemed to be a legal process for the purpose of interrupting extinctive prescription in terms of the Prescription Act, No. 68 of 1969.

14 NOTICES AND *DOMICILIA*

14.1 The Parties choose as their *domicilia citandi et executandi* their respective addresses set out in this 14 for all purposes arising out of or in connection with this Agreement, at which addresses all the processes and notices arising out of or in connection with this Agreement, its breach or termination, may validly be served upon or delivered to the Parties.

14.2 For the purposes of this Agreement, the Parties' respective addresses shall be -

14.2.1 as regards the Licensor at Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184

facsimile number: (012) 349 2128

email address: einar.ronander@klydon.co.za

marked for the attention of: Dr E Ronander

14.2.2 as regards the Licensee at, Unit 19 2nd floor , 1 Melrose Boulevard, Melrose Arch, Gauteng, 2076

Email address: pmann@aspisotopes.com

marked for the attention of: Paul Mann

14.3 Any notice given in terms of this Agreement shall be in writing and shall -

14.3.1 if delivered by hand, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of delivery;

14.3.2 if transmitted by facsimile, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of despatch; and

14.3.3 if delivered by recognised international courier service, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of such delivery by the courier service concerned,

provided that the relevant notice is marked for the attention of the relevant Party's designated person for receipt of any processes and notices in connection with this Agreement as contemplated in 14.2.

14.4 Notwithstanding anything to the contrary contained in this Agreement, a written notice or communication actually received by the relevant Party's designated person for receipt of any processes and notices in connection with this Agreement as contemplated in 14.2 from another Party, shall be adequate written notice or communication to such Party.

15 MISCELLANEOUS WARRANTY OF AUTHORITY

15.1 Warranty of Authority

Each Party warrants to each of the other Parties that it has the power, authority and legal right to sign and perform this Agreement and that this Agreement constitutes valid and binding obligations on it in accordance with the terms of this Agreement and, in respect of each Party that is a company, has been duly authorised by all necessary actions of its directors.

15.2 **Independent Advice**

Each Party hereto acknowledges that it has been free to secure independent legal advice as to the nature and effect of all of the provisions of this Agreement and that it has either taken such independent legal advice or dispensed with the necessity of doing so. Further, each Party hereto acknowledges that all of the provisions of this Agreement and the restrictions herein contained are fair and reasonable in all the circumstances and are part of the overall intention of the Parties in connection with the Company.

15.3 **Implementation**

The Parties undertake to do all such things, perform all such acts and take all steps to procure the doing of all such things and the performance of all such acts, as may be necessary or incidental to give or be conducive to the giving of effect to the terms, conditions and import of this Agreement.

15.4 **Payment**

15.4.1 Any payment payable in terms of this Agreement shall be net of any withholding taxes, other taxes, duties or levies, if any, payable in respect of such payment except to the extent that VAT is payable on such amount in which case the relevant amount shall include the relevant VAT amount.

15.4.2 Any amount not paid when due and payable under this Agreement shall bear interest at the Prime Rate from the due date to date of payment in full.

15.5 **Whole Agreement**

This Agreement constitutes the whole agreement between the Parties as to the subject matter hereof and no agreement, representations or warranties between the Parties other than those set out herein are binding on the Parties. This Agreement may only be varied by mutual written agreement.

15.6 **Variation**

No addition to or variation, consensual cancellation or novation of this Agreement and no waiver of any right arising from this Agreement or its breach or termination shall be of any force or effect unless reduced to writing and signed by each of the Parties or their duly authorised representatives.

15.7 **Relaxation**

No latitude, extension of time or other indulgence which may be given or allowed by either Party to the other Party in respect of the performance of any obligation hereunder or enforcement of any right arising from this Agreement and no single or partial exercise of any right by either Party shall under any circumstances be construed to be an implied consent by such Party or operate as a waiver or a novation of, or otherwise affect any of that Party's rights in terms of or arising from this Agreement or estop such Party from enforcing, at any time and without notice, strict and punctual compliance with each and every provision or term hereof.

15.8 **Counterparts**

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be taken together and deemed to be one instrument.

Signed at Pretoria on this the 25th day of January 2022

/s/ Einar Ronander — For: **Klydon (PTY) Limited**

Duly Authorised

Name: Einar Ronander

Designation: Director

Signed at Pretoria on this the 25th day of January 2022

/s/ Paul Mann — /s/ Robert Ainscow — For: **ASP Isotopes South Africa (PTY) Limited**

Duly Authorised

Name:	Paul Mann	Robert Ainscow
Designation:	CEO	Director

Exhibit 10.12

Klydon Proprietary Limited

and

PDS Photonica Holdings South Africa Proprietary Limited

CONTRACT FOR A TURNKEY MOLYBDENUM ENRICHMENT PLANT

DATED: 1 NOVEMBER 2021

in relation to:

1. **the custody of existing Molybdos assets;**
2. **the design of a 20 Kg p.a. molybdenum-100 enrichment facility with target manufacturing capability;**
3. **the supply of components and equipment required for the 20 Kg p.a.;**
4. **the installation, testing and commissioning of the Molybdenum enrichment plant including production of targets to be used by customers in cyclotrons;**
5. **securing all required approvals, regulatory authorisations and other required consents for the operation of the plant;**
6. **providing training to local PDS-P personnel to enable them to operate the plant going forward; and**
7. **providing warranties in relation to the performance targets of the plant which are required to be met.**

1.	ARTICLE 1 - PARTIES	3
2.	ARTICLE 2 –RECITALS	3
3.	ARTICLE 3 – DEFINITIONS AND INTERPRETATION	4
4.	ARTICLE 4 - DELIVERY, COMMENCEMENT AND CONTINUATION	6
5.	ARTICLE 5 - TERMS OF PAYMENT OF CONTRACT PRICE	7
6.	ARTICLE 6 - CHANGES TO PDS-P'S REQUIREMENTS	7
7.	ARTICLE 7 - CONTRACT MANAGEMENT	7
8.	ARTICLE 8 - WARRANTIES AND INDEMNITY	8
9.	ARTICLE 9 – BREACH AND TERMINATION	9
10.	ARTICLE 10 - AMENDMENT AND VARIATION; ASSIGNMENT	9
11.	ARTICLE 11 - CONFIDENTIALITY	9
12.	ARTICLE 12 - SEVERANCE	10
13.	ARTICLE 13 - DISPUTE RESOLUTION	10
14.	ARTICLE 14 – NOTICES	11
15.	ARTICLE 15 - LAW AND JURISDICTION	12
16.	ARTICLE 16 – COMPLIANCE MATTERS	12
17.	ARTICLE 17 – FORCE MAJEURE	13
18.	ARTICLE 18 - COMPLETION DATE	13
19.	ARTICLE 19 - AUTHORISED	14
APPENDIX 1 - SCHEDULE OF TASKS AND PROJECT PLAN		15
APPENDIX 2 - CONTRACT PRICE & PAYMENT PROCEDURE		17
APPENDIX 3 - ESCROW DOCUMENTS		20

THIS CONTRACT FOR A TURNKEY MOLYBDENUM ENRICHMENT PLANT IS DATED - 1 NOVEMBER 2021

1. ARTICLE 1 - PARTIES

(1) **PDS Photonica Holdings South Africa Proprietary Limited** (Registration number 2021/701779/07) incorporated in accordance with the laws of South Africa and having its registered office at Unit 19 2nd Floor, 1 Melrose Boulevard, Melrose Arch, Gauteng 2076 ("**PDS-P**"); and

(2) **Klydon Proprietary Limited** (Registration number 1997/019684/07) incorporated in accordance with the laws of South Africa and having its registered office at Building 46, Scientific Meiring Naude Road, Brummeria, Pretoria, 0184 (the "**Contractor**").

2. ARTICLE 2 –RECITALS

(A) The Contractor is a provider of a stable (non-radioactive) isotope separation plant, including technology transfer & management and market development.

(B) PDS-P wishes to appoint the Contractor to supply a complete Turnkey Molybdenum–100 (Mo-100) enrichment plant to PDS-P. The Contractor will provide its skills, expertise and knowledge in supplying a complete Turnkey Molybdenum–100 (Mo-100) enrichment plant to PDS-P.

(C) The Contractor has agreed to provide a complete, Turnkey, Molybdenum–100 (Mo-100) enrichment plant on the PDS-P site, with an initial capacity of 5 kg p.a. of 95% and above enriched molybdenum-100 (Mo-100), to be increased to 20 kg p.a., subject to the terms and conditions set out in this Contract and in compliance with: (i) all applicable national, supranational, state, provincial and local laws, including the requirements of the Non-Proliferation Treaty ("**NPT**"), the International Atomic Energy Agency ("**IAEA**") and the Nuclear Suppliers Group ("**NSG**"); and (ii) the procedures for registration and obtaining the necessary permits as laid down by the South African Non Proliferation Council ("**NPC**") and other requirements of the NPC), in each case as further provided in Article 16 of this Contract.

Note re: clauses (ii) & (iii) above - All isotope separation technologies are controlled by the IAEA under international agreement.

(D) The Parties acknowledge and agree that pursuant to this Contract:

(i) The Contractor shall take custody of the partially completed molybdenum enrichment plant known as the "Molybdos Plant" on behalf of PDS-P, who have acquired the plant under invoice number B-CE4-2415.

(ii) The Contractor shall incorporate the assets of Molybdos in order to attain a 20KG p.a. Molybdenum 100 enrichment plant for PDS-P, to an enrichment greater than 95% to meet the specification required by the Cyclotrn owner(s) for processing into medical grade TC-99M (Technetium-99M) as used in SPECT scans.

(iii) In order to safeguard the significant investment by PDS-P in this project, the Contractor undertakes to place the Project Documents in escrow with Adams & Adams Attorneys in Johannesburg (subject to compliance with applicable law, including requirements of the NPT, the IAEA and the NSG, as well as the procedures and requirements of the NPC).

The Recitals in this Article 2 are made a part of this Contract.

3. ARTICLE 3 – DEFINITIONS AND INTERPRETATION

3.1 Unless the context dictates otherwise, the words and expressions set forth below shall bear the following meanings and cognate expressions shall bear corresponding meanings:

"Business Day" means any day other than a Saturday, Sunday or an official public holiday in South Africa;

"Confidential Information" means all information which has been designated as confidential by either Party in writing or that ought to be considered as confidential (however it is conveyed or on whatever media it is stored) including but not limited to information which relates to the business, affairs, properties, assets, trading practices, services, developments, trade secrets, intellectual property rights, know-how, personnel, customers and suppliers of either Party and commercially sensitive information which may be regarded as the confidential information of the disclosing Party;

"**A complete Turnkey, Molybdenum–100 (Mo-100) enrichment plant** " means all of the activities to be undertaken by or to be performed by the Contractor as outlined in Appendix 1 at the facility leased by PDS-P at 33 Eland Street, Koedoespoort, Industrial, Pretoria;

"**Contract Manager**" means a director of PDS-P or such other person as PDS-P may notify to the Contractor in writing from time to time;

"**Contract Price"** means the price in US$ (United States Dollars) to be paid by PDS-P in consideration of the complete Turnkey, Molybdenum–100 (Mo-100) enrichment plant, which is to be paid in accordance with the payment procedure as set out in Appendix 2;

"Contractor Personnel" means all employees, agents and/or sub-contractors employed by the Contractor and/or of any sub-contractor;

"Contractor's Contract Manager(s)" means Dr Hendrik Johannes Strydom as Project Manager, Carl Ronander as Finance Manager and / or such other person as the Contractor may notify to PDS-P in writing from time to time;

"Dollars" means United States Dollars;

"Parties" means PDS-P and the Contractor, and "**Party**" shall, as the context requires, be a reference to any one of them;

"Project Documents" means all documents required in order to complete the Molybdenum–100 (Mo-100) 20 Kg p.a. enrichment plant, as more fully outlined in Appendix 3;

"Project Insurance" means project insurance procured by the Contractor by means of a suitable insurance policy with a licensed provider of such insurance. The insurance policy shall be "all risks" and shall specifically include cover in South Africa and Europe for:

- Project Management Protective Liability;
- Project Insurance cover of Project Objectives;
- Professional Indemnity;
- Public Liability;
- Employers Insurance Cover;
- Business Interruption Insurance; and
- Key Man Insurance;

"Signature Date" means the date of the signature of the Party last signing this Contract in time;

"Quantity & Specification" means the production of 20 kg of enriched Molybdenum-100 per annum, to an enrichment greater than 95% to meet the specification required by the Cyclotron owner(s) for processing into medical grade Tc-99m (Technetium-99m) as used in SPECT scans.

3.2 References to "**Contract**" means this contract (and includes the Appendices). References to "**Articles**" and "**Appendices**" mean articles of and appendices to this Contract. The provisions of the Appendices shall be binding on the Parties as if set out in full in this Contract. To the extent that there is any conflict between the Appendices and the provisions of this Contract, the provisions of this Contract shall prevail.

3.3 References in this Contract to statutory provisions include all prior and subsequent enactments, amendments and substitutions relating to that provision and to any regulations made under it.

3.4 Reference to the singular include the plural and vice versa and references to any gender include both genders. References to a person include any individual, firm, unincorporated association or body corporate.

3.5 A period of a "**month"** means unless the context otherwise requires, a period starting on one day in a calendar month and ending on the numerically corresponding day in the next succeeding calendar month except that, where any such period would otherwise end on a day which is not a Business Day it shall end on the immediately preceding Business Day; provided that if a period starts on the last Business Day of a calendar month or if there is no numerically corresponding days in the month in which that period ends, that period shall end on the last Business Day in that later month (and references to "**months"** shall be construed accordingly).

3.6 When any number of days is prescribed in this Contract, it shall be reckoned exclusively of the first and inclusively of the last day unless the last day falls on a day which is not a Business Day, in which case the last day shall be the next succeeding Business Day.

3.7 No provision of this Contract constitutes a stipulation for the benefit of any person who is not a Party to this Contract.

3.8 References to day/s, month/s or year/s shall be construed as Gregorian calendar day/s, month/s or year/s.

3.9 A reference to a Party includes that Party's successors-in-title and permitted assigns.

3.10 The rule of construction that, in the event of ambiguity, the Contract shall be interpreted against the Party responsible for the drafting thereof, shall not apply in the interpretation of this Contract.

3.11 The expiration or termination of this Contract shall not affect such of the provisions of this Contract as expressly provide that they will operate after any such expiration or termination or which of necessity must continue to have effect after such expiration or termination, notwithstanding that the clauses themselves do not expressly provide for this.

3.12 This Contract shall be binding on and enforceable by the successors-in-title, permitted assigns or liquidators of the Parties as fully and effectually as if they had signed this Contract in the first instance and reference to any Party shall be deemed to include such Party's successors-in-title, permitted assigns or liquidators, as the case may be.

3.13 Where figures are referred to in numerals and in words, if there is any conflict between the two, the words shall prevail.

3.14 The use of the word "including" followed by a specific example or examples shall not be construed as limiting the meaning of the general wording preceding the word "including" and the *eiusdem generis* rule shall not be applied in the interpretation of such general wording or such specific example or examples.

4. ARTICLE 4 - DELIVERY, COMMENCEMENT AND CONTINUATION

4.1 The Contractor shall commence the Turnkey, Molybdenum–100 (Mo-100) enrichment plant ("**Mo-100 plant**") project on the Signature Date, with an initial capacity of 5 kg p.a. of 95% and above enriched molybdenum-100 (Mo-100), to be increased to 20 kg p.a., all subject to the terms and conditions set out in this Contract.

4.2 The Mo-100 plant is of modular construction, with each module containing separator enrichment assemblies ("**SEAs**"), and each SEA containing one separator and four compressors. The abovementioned components are designed and built to separate molecules of gas, based on their molecular mass. They are manufactured to tolerances of tenths of microns. The compressors are made in Switzerland and the separators are made in South Africa. Every one of these high specification components is fully tested prior to installation into the SEA.

4.3 PDS-P has sought to finalise funding through institutional channels, but it has become clear that the only viable way to achieve the objective is to achieve a proof of concept of the Mo-100 plant separation technology through bringing the product to market, supported by a group of specialist private funding investors ("**the Investors**").

4.4 The Contractor undertakes that the initial "proof of concept" stage will take 6 (six) months to complete from the Signature Date ("**Initial Investment Stage**"). The capital requirements for the Initial Investment Stage is US$ 6,800,000 (six million eight hundred thousand Dollars). The Initial Investment Stage will end at the point of first production of Mo-100, which will be generated by completion of a smaller capacity plant, with an annual capacity of 5kgs per annum, which will then be augmented up to 20kgs capacity per annum, with an enrichment greater than 95%, through modular construction, with the benefit of a further capital injection equal to the secondary investment amount of U$ 6,000,000 (six million Dollars).

4.5 The Mo-100 plant target production will begin as soon as the first enriched material is available and sales contracts will be negotiated at this time.

4.6 The Contractor is appointed to undertake the provision of the Mo-100 plant. This Contract shall not prevent the Contractor from undertaking other consultancy or project management services provided that the undertaking of such services does not cause a delay to, or breach of, any provision of this Contract.

4.7 The Contractor shall provide Project Insurance by means of a suitable insurance policy with a licensed provider of such insurance, and the Contractor shall provide confirmation of such insurance cover by no later than 30 November 2021.

4.8 The Contractor shall promptly and efficiently provide the complete Mo-100 plant as and when required with all due care and skill as may be expected of a person or an organisation with the experience of the Contractor and in accordance with this Contract and in particular but not limited to the provisions set out in Appendix 1.

4.9 In the event of the dissolution, deregistration or winding-up of the Contractor, for any reason whatsoever, the Contractor agrees to cooperate with PDS-P to make offers of employment with PDS-P to Dr Einar Ronander and Dr Hendrik Johannes Strydom.

5. ARTICLE 5 - TERMS OF PAYMENT OF CONTRACT PRICE

5.1 PDS-P shall pay the Contractor the Contract Price in accordance with the payment provisions of Appendix 2 provided that:

(a) the Contractor has placed the Project Documents listed at Appendix 3 in escrow within 60 (sixty) days of the Signature Date; and

(b) PDS-P has received full and accurate information and documentation as required by Appendix 2 to be submitted by the Contractor, as work is completed in accordance with the schedule of tasks outlined in Appendix 1.

6. ARTICLE 6 - CHANGES TO PDS-P'S REQUIREMENTS

6.1 PDS-P shall notify the Contractor in writing of any material change to PDS-P's requirements under this Contract.

6.2 The Contractor shall use all reasonable endeavours to accommodate any changes to the needs and requirements of PDS-P provided that it shall be entitled to payment for any additional reasonable costs incurred as a result of any such changes. The amount of such additional costs must be agreed between the Parties in writing.

7. ARTICLE 7 - CONTRACT MANAGEMENT

7.1 The Contractor shall, and shall ensure that its officers, employees and agents, comply with any reasonable guidance or guidelines issued by the Contract Manager from time to time in connection with the a Mo-100 plant.

7.2 Employees and visitors from countries which have not acceded to the IAEA's NPT, will not be given access to the Mo-100 plant.

7.3 The Contractor shall address any enquiries about procedural, contractual or other matters in connection with the provision of the Mo-100 plant in writing to the Contract Manager. Any correspondence relating to this Contract shall quote the reference number set out on the cover page of this Contract.

7.4 The Contractor will provide regular progress updates to PDS-P, which include:

(a) weekly reports on each Friday at 12:00 South African time outlining the current status of project against the proposed plan set out in Appendix 1; and

(b) reports provided on the seventh Business Day following the last day of each and every month outlining the expenditure incurred and committed for the relevant phase.

7.5 PDS-P reserves the right to call Contract meetings at any time. These shall be attended by the Contractor, PDS, and the Contract Manager, and any other PDS-P representative that PDS-P wishes to attend.

7.6 The Contractor will be responsible, at their own expense, for obtaining the relevant licences and permits required in South Africa and liaising with the relevant South African authorities including, but not limited to, the NPC, the NSG and IAEA as appropriate to ensure that the Turnkey Contract and the Turnkey Molybdenum–100 (Mo-100) enrichment plant is compliant with international laws and guidelines.

7.7 The Contractor undertakes to maintain the licences and permits required for the Mo-100 plant by the South African authorities, international laws and guidelines as outlined in clause 7.6 above, and to ensure that such licences and permits are in full force and effect at all times. The Contractor shall provide to PDS-P copies of such licences and permits when requested to do so in writing by PDS-P.

7.8 The Contractor undertakes to support PDS-P with renewing the licences and permits required for the Mo-100 plant referred to in clauses 7.6 and 7.6 above, as and when they become due for renewal.

8. ARTICLE 8 - WARRANTIES AND INDEMNITY

8.1 The Contractor warrants and represents to PDS-P that the obligations of the Contractor under this Contract will be performed by appropriately qualified and trained personnel to the standard, care and skill required of such personnel.

8.2 The Contractor warrants that on completion, the Mo-100 plant will meet its performance target of producing 20 kg p.a. of enriched Mo-100, to the required specification.

8.3 PDS-P relies upon the Contractor's skill, expertise and experience in the performance of the Mo-100 plant. PSD-P also relies upon the accuracy of all representations or statements made and the advice given by the Contractor in connection with the performance of the Mo-100 plant and the accuracy of any documents conceived, originated, made or developed by the Contractor as part of this Contract.

8.4 The Contractor warrants and represents that any goods supplied by the Contractor or its sub-contractors, forming a part of the complete Mo-100 plant, will be of satisfactory quality and fit for their purpose and will be free from defects in design, material and workmanship.

8.5 The Contractor warrants and represents that the Mo-100 plant will have an initial capacity of 5 kg p.a. of 95% and above enriched molybdenum-100 (Mo-100) and that this capacity will be increased to 20 kg, during Q1 of the second year following the Signature Date of this Contract, provided the Mo-100 plant has the relevant capacity to operate for this period.

8.6 PDS-P enters into this Contract in reliance upon the warranties and representations in this Contract. PDS-P has conducted its own independent investigation, review and analysis of the Contractor and PDS-P acknowledges and agrees that: (a) in making its decision to enter into this Contract, PDS-P has relied solely upon its own investigation and the warranties and representations of the Contractor set forth in this Contract; and (b) neither the Contractor nor any other person has made any warranty or representation as to the Contractor or the project, except as expressly set forth in this Contract.

8.7 The Contractor indemnifies and holds PDS-P harmless from and against, and shall pay to PDS-P the amount of any and all losses incurred or suffered by PDS-P, resulting from a breach of any of the warranties and representations in this Article 8, and a breach of any other term of this Contract.

9. ARTICLE 9 – BREACH AND TERMINATION

9.1 A non-defaulting Party may terminate this Contract by providing the defaulting Party notice in writing that the defaulting Party is in material breach of its obligations under this Contract and where such breach is capable of remedy requiring the defaulting Party to remedy the breach within 10 (ten) days of the notice. If the breach has not been remedied within 10 (ten) days, the non-defaulting Party may terminate this Contract with immediate effect by providing the defaulting Party notice in writing.

9.2 Should the Contractor fail to meet the proposed schedule of tasks and project plan as outlined in Appendix 1, PDS-P will be entitled to withhold any payment due to the Contractor until such time that the Contractor meets the requirements of PDS-P, to the satisfaction of PDS-P.

9.3 Any termination of this Contract is without prejudice to any claim that either Party may have in respect of any breach of the terms and conditions of this Contract by the other Party arising prior to the date of cancellation.

10. ARTICLE 10 - AMENDMENT AND VARIATION; ASSIGNMENT

No addition to, variation or consensual cancellation of this Contract and no extension of time, waiver or relaxation or suspension of any of the provisions or terms of this Contract shall be of any force or effect unless in writing and signed by or on behalf of both Parties. The Contractor shall comply with any formal procedures set out by PDS-P for amending or varying contracts and PDS-P will notify the Contractor of these formal procedures from time to time.

Neither Party shall assign any of its rights or delegate any of its obligations hereunder without the prior written consent of the other Party. Any purported assignment or delegation in violation of this Section shall be null and void. No assignment or delegation shall relieve the assigning or delegating Party of any of its obligations hereunder unless the non-assigning or non-delegating Party enters into a novation releasing the assigning or delegating Party of its obligation under the Agreement.

11. ARTICLE 11 - CONFIDENTIALITY

11.1 The Contractor acknowledges that any Confidential Information obtained from or relating to PDS-P, its servants or agents is the property of PDS-P.

11.2 Each Party hereby warrants that:

(a) Any person employed or engaged by it (in connection with this Contract in the course of such employment or engagement) shall treat all Confidential Information belonging to the other Party as confidential, safeguard it accordingly and only use such Confidential Information for the purposes of this Contract.

(b) Any person employed or engaged by it (in connection with this Contract in the course of such employment or engagement) shall not disclose any Confidential Information to any third party without prior written consent of the other Party, except where disclosure is otherwise expressly permitted by the provisions of this Contract.

(c) The Contractor shall take all necessary precautions to ensure that all Confidential Information obtained from PDS-P is treated as confidential and not disclosed (without prior approval) or used other than for the purposes of this Contract by any of its employees, servants, agents or sub-contractors.

11.3 Without prejudice to the generality of the foregoing neither the Contractor or any person engaged by it whether as a servant or Contractor or otherwise, shall use the Confidential Information for the solicitation of business from PDS-P whether directly or by its servants or Contractors or any third party.

11.4 The Contractor shall ensure that their employees, servants or such professional advisors or Contractors are aware of the Contractor's obligations under this Contract.

12. ARTICLE 12 - SEVERANCE

Each provision in this Contract is severable from all others, notwithstanding the manner in which they may be linked together or grouped grammatically, and if in terms of any judgment or order, any provision, phrase, sentence, paragraph or clause is found to be defective or unenforceable for any reason, the remaining provisions, phrases, sentences, paragraphs and clauses shall nevertheless continue to be of full force. In particular, and without limiting the generality of the aforegoing, the Parties hereto acknowledge their intention to continue to be bound by this Contract notwithstanding that any provision may be found to be unenforceable or void or voidable, in which event the provision concerned shall be severed from the other provisions, each of which shall continue to be of full force.

13. ARTICLE 13 - DISPUTE RESOLUTION

13.1 Any dispute between the Parties in regard to:

(a) the interpretation of;

(b) the effect of;

(c) the Parties' respective rights and obligations under;

(d) a breach of;

(e) any matter arising out of;

this Contact shall be decided by mediation in the manner set out in this Article 13.

13.2 Any dispute as referred to in clause 13.1 above shall be referred to a Director of each of the Parties, or alternates appointed by them, who will use their best endeavours to resolve the dispute within 14 (fourteen) days of the dispute having been referred to it.

13.3 Any dispute not resolved in accordance with the above-mentioned provision shall be finally resolved in accordance with provisions of the Centre for Dispute Resolution (CEDR) mediation procedure.

13.4 No Party may commence any court proceedings in relation to any dispute arising out of this Contract until they have attempted to settle it by way of mediation.

13.5 Either Party to this Contract may demand that a dispute be referred to mediation by giving written notice to that effect to the other Party.

13.6 The mediation shall be held at Johannesburg in the English language and immediately and with a view to it being completed within 21 (twenty one) days after it is demanded.

13.7 This clause is severable from the rest of this Agreement and shall remain valid and binding on the Parties notwithstanding any termination of this Contract.

14. ARTICLE 14 – NOTICES

14.1 Each Party chooses the addresses set out opposite its name below as its addresses to which any written notice in connection with this Agreement may be addressed.

(a) PDS-P:

Physical address: Unit 19 2nd Floor
1 Melrose Boulevard
Melrose Arch
Gauteng
2076
Email address: geoff.miller@pdsphotonica.com

Marked for the attention of: Chairman; and Geoff Miller

(b) Contractor:

Physical address: Building 46, CSIR Campus
Meiring Naude Road
Brummeria
Pretoria
0184
Email address: carl.ronander@klydon.co.za; hendrik.strydom@klydon.co.za

Marked for the attention of: Carl Ronander and Dr Hendrik Johannes Strydom

14.2 Any notice or communication required or permitted to be given in terms of this Agreement shall be valid and effective only if in writing but it shall be competent to give notice by telefax transmitted to its telefax number set out opposite its name above.

14.3 Either Party may by written notice to the other Party change its chosen addresses and/or telefax number and/or e-mail address for the purposes of this clause to any other address(es), telefax number and/or e-mail address provided that the change shall only become effective on the tenth Business Day after the receipt of the notice by the addressee.

14.4 Any notice given in terms of this Agreement shall:

(a) if sent by a courier service be deemed to have been received by the addressee 48 (forty eight) hours following the date of such sending;

(b) if delivered by hand be deemed to have been received by the addressee on the date of delivery;

(c) if transmitted by facsimile be deemed to have been received by the addressee 12 (twelve) hours after proper transmission;

unless the contrary is proved.

14.5 Notwithstanding anything to the contrary herein contained, a written notice or communication actually received by a Party shall be an adequate written notice or communication to it, notwithstanding that it was not sent to or delivered at its chosen address and/or telefax number.

14.6 Address

(a) Each of the Parties chooses its physical address referred to above as its domicilium citandi et executandi at which documents in legal proceedings in connection with this Agreement may be served.

(b) Either Party may by written notice to the other Party change its domicilium from time to time to another address, not being a post office box or a poste restante, in South Africa; provided that any such change shall only be effective on the fourteenth day after deemed receipt of the notice by the other Party.

15. ARTICLE 15 - LAW AND JURISDICTION

This Agreement is governed by and shall be construed in accordance with the laws of South Africa. The Parties to this Agreement submit to the exclusive jurisdiction of the South African courts.

16. ARTICLE 16 – COMPLIANCE MATTERS

The Contractor will perform its obligations in accordance with: (a) all applicable national, supranational, state, provincial and local laws, including the requirements of the NPT, the IAEA and the NSG, as well as the procedures and requirements of the NPC); (b) the rules, decrees, regulations, and published industry accepted guidelines set forth by any national, multi-national, supranational or other governmental body with jurisdiction over this Contract or the Mo-100 plant; (c) this Contract; and (d) all reasonable instructions from PDS-P, to the extent they are not in conflict with any of clauses (a)-(c) of this Article 16. The Parties acknowledge that certain regulatory approvals, permits and authorizations are required for various matters addressed by this Contract, including transfer of technology, personnel having access to technology, and the transmission and storage of documents. Notwithstanding any other provision in this Contract to the contrary, in the event of any express conflict or inconsistency between a covenant or agreement in this Contract and any requirement of applicable law (including requirements of the NPT, the IAEA and the NSG, as well as the procedures and requirements of the NPC), the requirements of such applicable law will control.

17. ARTICLE 17 – FORCE MAJEURE

17.1 For the purpose of this Contract, Force Majeure shall mean any cause or event beyond the control of the affected Party and which cannot be prevented despite the utmost reasonable care of such Party and which prevents the affected Party from performing its obligations under this Contract. Events of Force Majeure shall be events, including without limitation: pandemic, fires, droughts, floods, explosions, natural catastrophes, military operations, blockades, sabotage, commotion, civil war, revolution, strike, lock-out, accident(s) categorized as Level 5 or above according to the International Nuclear and Radiological Event Scale, failure to act of any governmental authority, or export and import prohibitions, as well as the non- or late issuance of licenses and other sovereign measures or any other circumstances beyond the reasonable control and not within the reasonable expectation of either Party.

17.2 The Party affected by Force Majeure shall immediately notify the other Party of the nature and expected duration of the Force Majeure as well as of the reason and the related delays, and shall keep the other Party informed and is obligated to use its best effort to minimize the financial consequences, damages and other effects for the other Party. When notifying the other Party of the Force Majeure event, the Party affected by Force Majeure shall provide the other Party with reasonable proof, if possible confirmed by the competent authority not later than twenty five (25) days after Force Majeure occurrence.

17.3 In the event that the effects of the Force Majeure last longer than 120 (one hundred and twenty) days, or upon knowledge that the effects of the Force Majeure will last longer than 120 (one hundred and twenty) days, either Party is entitled to cancel this Contract in whole or in part. Such cancellation of the Contract shall be notified in writing to the other Party within 3 (three) weeks after expiration of said 120 (one hundred and twenty) days period, respectively within 60 (sixty) days after knowledge that the effects of the Force Majeure will last longer than 120 (one hundred and twenty) days. In the event of cancellation hereunder, neither Party shall be entitled to damages from the other Party as a result of the non-performance.

18. ARTICLE 18 - COMPLETION DATE

18.1 The Contractor agrees not to undertake any other projects during the design, build and commissioning of the Molybdos Plant that could in anyway detract their efforts to complete the Mo-100 plant in accordance with the terms of this Contract. The Contractor will ensure that the Mo-100 plant is constructed according to the project targets as set out in paragraph 7.1 of Appendix 3.

18.2 This Contract shall be deemed to be completed upon the completion of all project targets set out in paragraph 7.1 of Appendix 3 and upon satisfactory performance of the Mo-100 plant and the completion of the training of operational staff and licensing of local operations, all to the satisfaction of PDS-P. PDS-P shall notify the Contractor once it is so satisfied, and PDS-P shall confirm the completion date in that notice.

19. ARTICLE 19 - AUTHORISED

Signed at London on the 1st day of November 2021.

For and on behalf of
PDS Photonica Holdings South Africa Proprietary Limited

/s/ Robert Ainscow
Name: Robert Ainscow
Capacity: Director
Who warrants authority

Signed at Pretoria on the 1st day of November 2021.

For and on behalf of
Klydon Proprietary Limited

/s/ H. J. Strydom
Name: H. J. Strydom
Capacity: CEO
Who warrants authority

APPENDICES

APPENDIX 1 - SCHEDULE OF TASKS AND PROJECT PLAN

1 **Take custody of existing Molybdos assets**

The Contractor will take responsibility for taking control of the assets acquired in the Molybdos Business Rescue Auction held on 30 September 2021. The Contractor will ensure that all assets purchased are secured and are in working order.

2 **Design a 20 Kg p.a. molybdenum-100 enrichment facility with target manufacturing capability**

The design for the plant and the target facility will be completed by the Contractor and will be placed in escrow in accordance with the terms of Appendix 3. The design specification will be in line to construct an ASP plant that will produce 20 Kg p.a of 95% and above enriched Molybdenum isotope.

3 **Supply components and equipment required for 20 Kg p.a.**

3.1 The Contractor will ensure that all components, equipment and labour required for the construction of the Mo-100 plant are sourced. The costs of the components, equipment and labour will be on an open book basis and be available for PDS-P for inspection for reporting and audit purposes.

3.2 A suitably qualified third party contractor, with qualifications as a quantity surveyor or equivalent, will be appointed by PDS-P to verify all expenses incurred and report directly to PDS-P regarding the progress of the Contract.

4 **Install, Test and Commission the Molybdenum enrichment plant including production of targets to be used by customers in cyclotrons**

The Contractor will be responsible for the installation of all the components sourced. Furthermore, the testing of these components and the commissioning of the Mo-100 plant will be done by the Contractor.

5 **Secure all required approvals, regulatory etc for operation of plant**

PDS-P will need to have all the relevant licenses and operating approvals are obtained and remain in effect in accordance with the requirements of clauses 7.6, 7.7 and 7.8 of this Contract. The Contractor will ensure that all the registrations are completed with the regulatory bodies, and that PDS-P has the relevant license and approvals to commercially operate.

6 **Provide training to local PDS personnel to enable them to operate the plant going forward**

The personnel required for the operating of the Mo-100 plant would require unique training. The Contractor will ensure that all staff required to operate that plant are recruited and adequately trained.

7 **Provide warranty i.e. guarantee of plant meeting performance targets**

7.1 The Contractor will ensure that the plant is constructed according to its designed capacity and that all production output is met in accordance with the stipulated contract targets:

(1) Q3 from the Signature Date: 750g

(2) Q4 from the Signature Date: 1250g

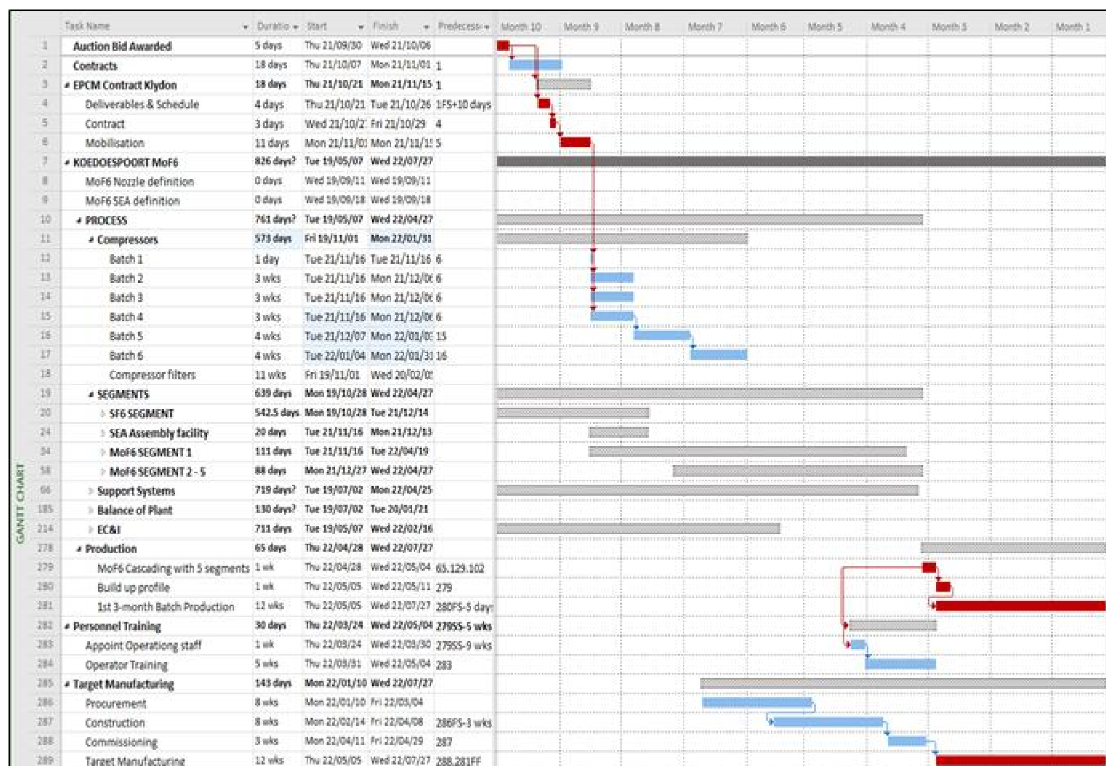
(3) Q5 from the Signature Date: 1250g

(4) Q6 from the Signature Date: 3750g

(5) Q7 from the Signature Date: 5000g

7.2 Achievement of the above is subject to no material changes to the Contract scope, timely payment to the Contractor and PDS-P having a trained team operational to support the above production targets.

7.3 The Contractor will provide PDS-P with an updated Gantt chart on each Friday at 12:00 South African time. The Gantt chart will be reviewed by Peter Shaefer and Dr Hendrik Johannes Strydom.



APPENDIX 2 - CONTRACT PRICE & PAYMENT PROCEDURE

1 The Parties agree that the payment procedure set out in this Appendix 2 is a guideline only. Any deviation from the payment procedure, as set out below, must be agreed between the Parties in writing.

2 The Contract Price is a maximum of $12.8 million, in the following Investment Stages.

2.1 Phase 1 "**Initial Investment Stage**" (US$ 6,800,000)

Initial Investment	$6,800,000

Professional Services	$1,846,605
Klydon Labour	$1,132,131
Klydon Overheads	$157,895
CSIR Rent	$157,895
Koedoespoort Rent	$157,895
PS	$197,368
Legal Fees	$19,737
Test Bench Validations	$23,684

SF6 - Hot Commissioning	$13,158
Segment -Circle-4 (SF6)	$6,579
Analytical	$6,579

MoF6 - Plant	$3,469,141
Segments	$1,154,770
PS CNC	$328,947
Balance of Compressors	$80,141
Compressor Penalty & Spares	$259,709
Extra Compressor	$359,389
Backbone	$29,605
LER	$78,947
HER	$98,684
RCU	$460,526
Vacuum Trolley	$59,211
Electrical	$526,316
Control	$32,895
Target Manufacturing	$800,000
Contingency	$671,097

2.2 Phase 2 Secondary Investment Amount (U$ 6,000,000)

Secondary Investment	$6,000,000

Professional Services	$1,525,127
Klydon Labour	$934,008
Klydon Overheads	$130,263
CSIR Rent	$130,263
Koedoespoort Rent	$130,263
PS	$162,829
Legal Fees	$19,737
Test Bench Validations	$17,763

MoF6 - Plant	$3,934,671
Segments	$1,616,678
PS CNC	$0
Balance of Compressors	$200,353
Compressor Penalty & Spares	$0
Extra Compressor	$1,078,166
Backbone	$29,605
LER	$39,474
HER	$49,342
RCU	$230,263
Vacuum Trolley	$0
Electrical	$657,895
Control	$32,895
Contingency	$540,202

3 **Payment Procedure**

3.1 The Contractor shall be paid an initial fee of US$1,800,000 against an invoice to be submitted to PDS-P following the Signature Date. All payments made to date to the Contractor in relation to the Mo-100 prior to the initial fee will be deducted from this amount.

3.2 It is noted that the pricing for both phases include a provision for rental of the Koedoespoort facility and, in the event that PDS-P contracts and pays rental directly to the landlord, the rental provision will be deducted from that component of the Contract Price.

3.3 An amount equal to the contingency estimated for each phase will be retained by PDS-P and paid over to the Contractor at latest the completion of the relevant phase subject to:

(1) Satisfactory completion of the project phase and/or;

(2) Evidence of application of the Contingency.

3.4 The Projected Drawdown Schedule outlined in paragraph 4 below represents an estimated phasing of funding as required by the Contractor to complete the Mo-100 plant. The amounts reflected in the Projected Drawdown Schedule are gross of any retention for contingency and other deductions including rental paid directly by PDS-P and mobilisation funding provided prior to execution of this Contract. The Parties will jointly review and align on the actual cash drawdown required at the beginning of each month reflecting the actual commitments and phasing of the Mo-100 plant.

4 The Projected Drawdown Schedule, to which retention will be applied:

4.1 “Initial Investment Stage” (US$ 6,800,000):

	Upfront	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 12
Drawdowns	R1,800,000.0	900,000.00	1,000,000.00	1,000,000.00	400,000.00	600,000.00	100,000.00	300,000.00	700,000.00

4.2 “Secondary Investment Amount” (U$ 6,000,000):

	Upfront	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 12
Drawdowns	R1,800,000.0	800,000.00	850,000.00	700,000.00	150,000.00	600,000.00	100,000.00	300,000.00	700,000.00

APPENDIX 3 - ESCROW DOCUMENTS

Within 60 days of the Signature Date, the Contractor will place the following documents in escrow with Adams & Adams in Johannesburg:

1 Project plan of the Molybdenum 100 plant capable of production of 20kg per annum Mo-100 with an enrichment grade higher than 95%; and

2 detailed design of Molybdenum 100 plant capable of production of 20kg per annum Mo-100 with an enrichment grade higher than 95%.

As soon as the Operating and Training Manuals for the Molybdenum 100 Plant are available (which is expected to be within 6 (six) months of the Signature Date, the Contractor will place those with those documents in escrow with Adams & Adams in Johannesburg).

The Parties agree that an escrow agreement is to be concluded between the Parties and Adams & Adams Attorneys to deal with the terms and conditions of this escrow arrangement.

Nothing below this line

Exhibit 10.13

Confidential

INDEMNIFICATION AGREEMENT

THIS INDEMNIFICATION AGREEMENT (the "**Agreement**") is made and entered into as of January __, 2022 by and among ASP Isotopes Inc., a Delaware corporation (the "**Company**"), and Dr Einar Ronander and Dr Hendrik Johannes Strydom (each, an "**Indemnitee**"; and collectively, the "**Indemnitees**").

WITNESSETH THAT:

WHEREAS, the Company is the sole shareholder of PDS-Photonica Holdings (Guernsey) Limited, a Guernsey company, which in turn is the sole shareholder of PDS Photonica Holdings South Africa Proprietary Limited, a South Africa company ("**PDS South Africa**");

WHEREAS, as a material inducement to Company to enter into this Agreement, and simultaneously with, the execution of this Agreement, each Indemnitee is entering into a consulting agreement (collectively, the "**Consulting Agreements**"), pursuant to which the Indemnitees have agreed, among other things, to perform the services set forth therein for the Company;

WHEREAS, each Indemnitee is a shareholder, director, officer or employee of Isotope Separation Technologies Holdings Proprietary Limited (Registration Number 2007/028716/07) ("**IST**"), which is the largest shareholder of Klydon Proprietary Limited, a South Africa company ("**Klydon**");

WHEREAS, IST, the Indemnitees, Klydon and IST International Holdings Ltd (BVI Company Number 1433883) ("**IST BVI**") are parties to an agreement dated May 15, 2012 (the "**IST BVI Agreement**"); and

WHEREAS, the Board of Directors of the Company has determined that it is reasonable, prudent and necessary for the Company contractually to obligate itself to indemnify the Indemnitees as provided herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Indemnity of Indemnitees. Subject to the terms and conditions set forth in Section 2, the Company, on behalf of itself and PDS South Africa (collectively, the "**Indemnifying Party**"), hereby agrees to indemnify, hold harmless, and defend the Indemnitees against any and all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs, or expenses of whatever kind, including professional fees and reasonable attorneys' fees, that are incurred by the Indemnitees (collectively, "**Losses**"), arising out of any claim by IST BVI related to the IST BVI Agreement.

2. Exceptions and Limitations on Indemnification.

(a) Exceptions. Notwithstanding anything to the contrary in this Agreement, Indemnifying Party is not obligated to indemnify, hold harmless, or defend any Indemnitee against any IDC claim (whether direct or indirect) if (1) such claim or corresponding Losses arise out of or result from, in whole or in part, such Indemnitee's gross negligence or more culpable act or omission or (2) such Indemnitee is in material breach of his obligations hereunder.

(b) Maximum Aggregate Liability. Indemnifying Party is not obligated to reimburse the Indemnitees under this Agreement for any Losses that exceed, in the aggregate, USD 3,200,000.

(c) Payment Adjustments for Insurance Proceeds. Payments by Indemnifying Party under this Agreement in respect of any Losses are limited to the amount of any liability or damage that remains after deducting therefrom any insurance proceeds and any indemnity, contribution, or other similar payment actually received by any Indemnitee in respect of any such indemnity claim, less any related costs and expenses, including the aggregate cost of pursuing any related insurance claims and any related increases in insurance premiums or other charge-backs. Promptly after the realization of any insurance proceeds, indemnity, contribution, or other similar payment, each Indemnitee shall reimburse Indemnifying Party for such reduction in Losses for which such Indemnitee was paid under this Agreement before the realization of reduction of such Losses.

3. Indemnifying Party Control of Defense. Indemnifying Party may assume, at its sole option, control of the defense, appeal, or settlement of any IDC claim that is reasonably likely to give rise to an indemnification claim under this Agreement (an "**Indemnified Claim**") by sending written notice of the assumption to Indemnitees to acknowledge responsibility for the defense of such Indemnified Claim and undertake, conduct, and control, through reputable independent counsel of its own choosing and at Indemnifying Party's sole cost and expense, the settlement or defense thereof.

4. Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision. Without limiting the generality of the foregoing, this Agreement is intended to confer upon the Indemnitees indemnification rights to the fullest extent permitted by applicable laws. In the event any provision hereof conflicts with any applicable law, such provision shall be deemed modified, consistent with the aforementioned intent, to the extent necessary to resolve such conflict.

5. Modification and Waiver. No supplement, modification, termination or amendment of this Agreement shall be binding unless executed in writing by both of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

6. Notice By Indemnitees. Each Indemnitee agrees promptly to notify the Company in writing upon being served with or otherwise receiving any summons, citation, subpoena, complaint, indictment, information or other document relating to any proceeding or matter which may be subject to indemnification covered hereunder.

7. Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent:

(a) To each Indemnitee at the address or email address set forth below such Indemnitee's signature hereto.

(b) To the Company at the company's then-current principal place of business, attention: Chief Executive Officer.

or to such other address as may have been furnished to the Indemnitees by the Company or to the Company by any Indemnitee, as the case may be.

8. Agreement to Remain Confidential. Except for such disclosure as is necessary, in the opinion of a party's counsel, to not to be in violation of any applicable law, regulation, order, or other similar requirement of any governmental, regulatory, or supervisory authority, the parties shall not, and shall not permit any of their agents or representatives to, without the prior written consent of the other party, disclose to any person or entity: (a) the existence or contents of this Agreement or the Consulting Agreements; (b) the fact that discussions, or negotiations are taking or have taken place between the parties, including the status thereof; or (c) any terms, conditions, or other matters agreed between the parties.

9. Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same the same instrument. Counterparts may be delivered via electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

10. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

11. Governing Law. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement on and as of the day and year first above written.

COMPANY:

ASP Isotopes Inc.

By: /s/ Paul Mann
Name: Paul Mann
Title: Chief Executive Officer

INDEMNITEES:

/s/ Einar Ronander
Name: Dr Einar Ronander

Address: Building 46, CSIR Campus
Meiring Naude Road
Brummeria, Pretori, 0184

Email: einar.ronander@klydon.co.za

/s/ Hendrik Johannes Strydom
Name: Dr Hendrik Johannes Strydom

Address: Building 46, CSIR Campus
Meiring Naude Road
Brummeria, Pretori, 0184

Email: hendrik.strydom@klydon.co.za

Signature Page to Indemnification Agreement

ASP Isotopes Inc.
433 Plaza Real, Suite 275
Boca Raton, FL 33432

January 21, 2022

Prof. Einar Ronander
CSIR Campus, Building 46 Meiring Naude Rd,
Brummeria, Pretoria, South Africa

Dear Prof. Ronander,

This letter agreement (this "**Agreement**") sets forth the terms and conditions whereby you agree to provide certain services (as described in Schedule 1) to ASP Isotopes Inc., a Delaware corporation (the "**Company**").

1. SERVICES.

1.1 The Company hereby engages you, and you hereby accept such engagement, as an independent contractor to provide certain services to the Company on the terms and conditions set forth in this Agreement.

1.2 You shall provide to the Company the services set forth in Schedule 1 (the "**Services**").

1.3 The Company does not and shall not control or direct the manner or means by which you perform the Services.

1.4 As set forth in Schedule 1, the Company shall provide you with access to its premises, materials, information, and systems to the extent necessary for the performance of the Services. Unless otherwise specified in Schedule 1, you shall furnish, at your own expense, the materials, equipment, and other resources necessary to perform the Services.

1.5 You shall comply with all rules and procedures communicated to you in writing by the Company, including those related to safety, security, and confidentiality.

2. TERM. The term of this Agreement shall commence as of the date set forth above and shall continue until the Services are completed, unless earlier terminated in accordance with Section 8 (the "**Term**"). Any extension of the Term will be subject to mutual written agreement between you and the Company (referred to collectively as the "**Parties**").

3. FEES AND EXPENSES.

3.1 As full compensation for the Services and the rights granted to the Company in this Agreement, the Company shall pay you a fee (the "**Fees**") set forth in Schedule 1.

3.2 All travel should be approved by the Company prior to booking.

3.3 The Company shall pay all undisputed Fees within 30 calendar days after the Company's receipt of an invoice submitted by you in accordance with the payment schedule set forth in Schedule 1.

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4. RELATIONSHIP OF THE PARTIES AND COMPLIANCE MATTERS.

4.1 You are an independent contractor of the Company, and this Agreement shall not be construed to create any association, partnership, joint venture, employment, or agency relationship between you and the Company for any purpose. You have no authority (and shall not hold yourself out as having authority) to bind the Company and you shall not make any agreements or representations on the Company's behalf without the Company's prior written consent.

4.2 Without limiting Section 4.1, you will not be eligible to participate in any vacation, group medical or life insurance, disability, profit sharing or retirement benefits, or any other fringe benefits or benefit plans offered by the Company to its employees, and the Company will not be responsible for withholding or paying any income, payroll, Social Security, or other federal, state, or local taxes, making any insurance contributions, including for unemployment or disability, or obtaining workers' compensation insurance on your behalf. You shall be responsible for, and shall indemnify the Company against, all such taxes or contributions, including penalties and interest. Any persons employed or engaged by you in connection with the performance of the Services shall be your employees or contractors and you shall be fully responsible for them and indemnify the Company against any claims made by or on behalf of any such employee or contractor.

4.3 The parties hereto acknowledge and agree that certain regulatory approvals, permits, licenses, authorizations, registrations, certificates, consents, orders, variances and similar rights (collectively, "**Permits**") are required for various matters addressed by this Agreement, including work with nuclear proliferation technology or in the field of "dual-use" technology as defined by IAEA, transfer of technology, personnel having access to technology, and the transmission and storage of documents. Notwithstanding any other provision in this Contract to the contrary, in the event of any express conflict or inconsistency between a covenant or agreement in this Agreement and any requirement of applicable law (including requirements of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the International Atomic Energy Agency (IAEA) and the Nuclear Suppliers Group (NSG), as well as the procedures and requirements of the Non-Proliferation of Weapons of Mass Destruction (NPC)), the requirements of such applicable law will control. The Company shall work with Consultant to obtain, at the Company's expense, all relevant Permits in the United States, South Africa and other jurisdictions worldwide.

5. INTELLECTUAL PROPERTY RIGHTS.

5.1 You hereby irrevocably assign to the Company, for no additional consideration, your entire right, title, and interest throughout the world in and to all results and proceeds of the Services performed under this Agreement, including but not limited to the deliverables set out in Schedule 1 (collectively, the "**Deliverables**") and all other writings, technology, inventions, discoveries, processes, techniques, methods, ideas, concepts, research, proposals, and materials, and all other work product of any nature whatsoever, that are created, prepared, produced, authored, edited, modified, conceived, or reduced to practice in the course of performing the Services or other work performed in connection with the Services or this Agreement (collectively, and including the Deliverables, "**Work Product**") including all patents, copyrights, trademarks (together with the goodwill symbolized thereby), trade secrets, know-how, and other confidential or proprietary information, and other intellectual property rights (collectively "**Intellectual Property Rights**") therein, including the right to sue for past, present, and future infringement, misappropriation, or dilution thereof. For the sake of clarity, the territory described in this Section 5.1 as "throughout the world" is subject to and limited by any requirement of applicable law (as described in Section 4.3).

5.2 To the extent any copyrights are assigned under this Section 5, you hereby irrevocably waive in favor of the Company, to the extent permitted by applicable law, any and all claims you may now or hereafter have in any jurisdiction to all rights of paternity or attribution, integrity, disclosure, and withdrawal and any other rights that may be known as "moral rights" in relation to all Work Product to which the assigned copyrights apply.

5.3 You shall make full and prompt written disclosure to the Company of any inventions or processes, as such terms are defined in 35 U.S.C. § 100, that constitute Work Product, whether or not such inventions or processes are patentable or protected as trade secrets. You shall not disclose to any third party the nature or details of any such inventions or processes without the prior written consent of the Company. Any patent application for or application for registration of any Intellectual Property Rights in any Work Product that you may file during the Term or at any time thereafter will belong to the Company, and you hereby irrevocably assign to the Company, for no additional consideration, your entire right, title, and interest in and to such application, all Intellectual Property Rights disclosed or claimed therein, and any patent or registration issuing or resulting therefrom.

5.4 Upon the request of the Company, during and after the Term, you shall promptly take such further actions, including execution and delivery of all appropriate instruments of conveyance, and provide such further cooperation, as may be necessary to assist the Company to apply for, prosecute, register, maintain, perfect, record, or enforce its rights in any Work Product and all Intellectual Property Rights therein. In the event the Company is unable, after reasonable effort, to obtain your signature on any such documents, you hereby irrevocably designate and appoint the Company as your agent and attorney-in-fact, to act for and on your behalf solely to execute and file any such application or other document and do all other lawfully permitted acts to further the prosecution and issuance of patents, copyrights, or other intellectual property protection related to the Work Product with the same legal force and effect as if you had executed them. You agree that this power of attorney is coupled with an interest.

5.5 Notwithstanding Section 5.1, to the extent that any of your pre-existing materials are incorporated in or combined with any Deliverable or otherwise necessary for the use or exploitation of any Work Product, you hereby grant to the Company an irrevocable, worldwide, perpetual, royalty-free, non-exclusive license to use, publish, reproduce, perform, display, distribute, modify, prepare derivative works based upon, make, have made, sell, offer to sell, import, and otherwise exploit such preexisting

materials and derivative works thereof. The Company may assign, transfer, and sublicense (through multiple tiers) such rights to others without your approval. For the sake of clarity, the obligations described in this Section 5.5 are subject to and limited by any requirement of applicable law (as described in Section 4.3).

5.6 As between you and the Company, the Company is, and will remain, the sole and exclusive owner of all right, title, and interest in and to any documents, specifications, data, know-how, methodologies, software, and other materials provided to you by the Company ("**Company Materials**"), and all Intellectual Property Rights therein. You have no right or license to reproduce or use any Company Materials except solely during the Term to the extent necessary to perform your obligations under this Agreement. All other rights in and to the Company Materials are expressly reserved by the Company. You have no right or license to use the Company's trademarks, service marks, trade names, logos, symbols, or brand names.

5.7 You shall require each of your employees and contractors to execute written agreements containing obligations of confidentiality and non-use and assignment of inventions and other work product consistent with the provisions of this Section 5 prior to such employee or contractor providing any Services under this Agreement.

6. CONFIDENTIALITY.

6.1 You acknowledge that you will have access to information that is treated as confidential and proprietary by the Company including without limitation the existence and terms of this Agreement, trade secrets, technology, and information pertaining to business operations and strategies, customers or anticipated customers, pricing, marketing, finances, sourcing, personnel, or operations of the Company, its affiliates, or their suppliers or customers anticipated suppliers or anticipated customers, in each case whether spoken, written, printed, electronic, or in any other form or medium (collectively, the "**Confidential Information**"). Any Confidential Information that you access or develop in connection with the Services, including but not limited to any Work Product, shall be subject to the terms and conditions of this clause. You agree to treat all Confidential Information as strictly confidential, not to disclose Confidential Information or permit it to be disclosed, in whole or part, to any third party without the prior written consent of the Company in each instance, and not to use any Confidential Information for any purpose except as required in the performance of the Services. You shall notify the Company immediately in the event you become aware of any loss or disclosure of any Confidential Information.

6.2 Confidential Information shall not include information that:

(a) is or becomes generally available to the public other than through your breach of this Agreement; or

(b) is communicated to you by a third party that had no confidentiality obligations with respect to such information.

6.3 Nothing herein shall be construed to prevent disclosure of Confidential Information as may be required by applicable law or regulation, or pursuant to the valid order of a court of competent jurisdiction or an authorized government agency, provided that the disclosure does not exceed the extent of disclosure required by such law, regulation, or order. You agree to provide written notice of any such order to an authorized officer of the Company within 24 hours of receiving such order, but in any event sufficiently in advance of making any disclosure to permit the Company to contest the order or seek confidentiality protections, as determined in the Company's sole discretion.

6.4 Notice of Immunity Under the Defend Trade Secrets Act of 2016 ('**DTSA**"). Notwithstanding any other provision of this Agreement:

(a) You will not be held criminally or civilly liable under any federal or state trade secret law for any disclosure of a trade secret that:

(i) is made: (A) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (B) solely for the purpose of reporting or investigating a suspected violation of law; or

(ii) is made in a complaint or other document that is filed under seal in a lawsuit or other proceeding.

(b) If you file a lawsuit for retaliation by the Company for reporting a suspected violation of law, you may disclose the Company's trade secrets to your attorney and use the trade secret information in the court proceeding if you:

(i) file any document containing the trade secret under seal; and

(ii) do not disclose the trade secret, except pursuant to court order.

7. REPRESENTATIONS AND WARRANTIES.

7.1 You represent and warrant to the Company that:

(a) you have the right to enter into this Agreement, to grant the rights granted herein, and to perform fully all of your obligations in this Agreement;

(b) your entering into this Agreement with the Company and your performance of the Services do not and will not conflict with or result in any breach or default under any other agreement to which you are subject;

(c) you have the required skill, experience, and qualifications to perform the Services, you shall perform the Services in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services, and you shall devote sufficient resources to ensure that the Services are performed in a timely and reliable manner;

(d) you shall perform the Services in compliance with all applicable federal, state, and local laws and regulations, including by maintaining all licenses, permits, and registrations required to perform the Services;

(e) the Company will receive good and valid title to all Work Product, free and clear of all encumbrances and liens of any kind; and

(f) all Work Product is and shall be your original work (except for material in the public domain or provided by the Company) and does not and will not violate or infringe upon the intellectual property right or any other right whatsoever of any person, firm, corporation, or other entity.

7.2 The Company hereby represents warrants and covenants to you that:

(a) it has the full right, power, and authority to enter into this Agreement and to perform its obligations hereunder; and

(b) the execution of this Agreement by its representative whose signature is set forth at the end of this Agreement has been duly authorized by all necessary corporate action; and

(c) it shall provide Consultant with copies of all Permits required to be obtained by the Company pursuant to Section 4.3.

8. TERMINATION.

8.1 You or the Company may terminate this Agreement without cause upon 30 calendar days' written notice to the other party to this Agreement. In the event of termination pursuant to this clause, the Company shall pay you on a pro-rata basis any Fees then due and payable for any Services completed up to and including the date of such termination.

8.2 You or the Company may terminate this Agreement, effective immediately upon written notice to the other party to this Agreement, if the other party breaches this Agreement, and such breach is incapable of cure, or with respect to a breach capable of cure, the other party does not cure such breach within 10 calendar days after receipt of written notice of such breach.

8.3 Upon expiration or termination of this Agreement for any reason, or at any other time upon the Company's written request, you shall promptly after such expiration or termination:

(a) deliver to the Company all Deliverables (whether complete or incomplete) and all materials, equipment, and other property provided for your use by the Company;

(b) deliver to the Company all tangible documents and other media, including any copies, containing, reflecting, incorporating, or based on the Confidential Information;

(c) permanently erase all of the Confidential Information from your computer systems; and

(d) certify in writing to the Company that you have complied with the requirements of this clause.

8.4 The terms and conditions of this clause and Section 4, Section 5, Section 6, Section 7, Section 9, and Section 10 shall survive the expiration or termination of this Agreement.

9. GOVERNING LAW, JURISDICTION, AND VENUE. This Agreement and all related documents including all schedules attached hereto and all matters arising out of or relating to this Agreement and the Services provided hereunder, whether sounding in contract, tort, or statute, for all purposes shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to any conflict of laws principles that would cause the laws of any other jurisdiction to apply. Any action or proceeding by either of the Parties to enforce this Agreement shall be brought in any state or federal court located in the State of New York, County of New York. The Parties hereby irrevocably submit to the non-exclusive jurisdiction of these courts and waive the defense of inconvenient forum to the maintenance of any action or proceeding in such venue.

10. MISCELLANEOUS.

10.1 You shall not export, directly or indirectly, any technical data acquired from the Company, or any products utilizing any such data, to any country in violation of any applicable export laws or regulations.

10.2 All notices, requests, consents, claims, demands, waivers, and other communications hereunder (each, a "**Notice**") shall be in writing and addressed to the Parties at the addresses set forth on the first page of this Agreement (or to such other address that may be designated by the receiving party from time to time in accordance with this Section). All Notices shall be delivered by personal delivery, nationally recognized overnight courier (with all fees prepaid), email, or certified or registered mail (in each case, return receipt requested, postage prepaid). Except as otherwise provided in this Agreement, a Notice is effective only if: (a) the receiving party has received the Notice; and (b) the party giving the Notice has complied with the requirements of this Section.

10.3 This Agreement, together with any other documents incorporated herein by reference and related exhibits and schedules, constitutes the sole and entire agreement of the Parties to this Agreement with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations, and warranties, both written and oral, with respect to such subject matter.

10.4 This Agreement may only be amended, modified, or supplemented by an agreement in writing signed by each party hereto, and any of the terms thereof may be waived, only by a written document signed by each party to this Agreement or, in the case of waiver, by the party or parties waiving compliance.

10.5 If any term or provision of this Agreement is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

10.6 This Agreement may be executed in multiple counterparts and by electronic signature, each of which shall be deemed an original and all of which together shall constitute one instrument.

[*Signature Page Follows*]

If this letter accurately sets forth our understanding, kindly execute the enclosed copy of this letter and return it to the undersigned.

Very truly yours,

ASP Isotopes Inc.

By: /s/ Paul Mann
Name: Paul Mann

Title: Chief Executive Officer

ACCEPTED AND AGREED:

By: /s/ Einar Ronander
(signature)

Name: Einar Ronander
(printed name)

Title:

Date: 21-1-2022

Federal Tax Id. No./Social Security No.:

SCHEDULE 1

1. SERVICES:

1. The Consultant will assist the Company and its present and future subsidiaries (collectively, the "**Company Group**") in developing the ASP Technology for the enrichment of Uranium and forming a licensing transaction relating to the enrichment of Uranium.

2. (a) The Consultant will assist the Company Group to obtain, or cause to be obtained, all regulatory approvals, permits, licenses, authorizations, registrations, certificates, consents, orders, variances and similar rights (collectively, "**Permits**") that are required to be obtained, or reasonably requested by the Company, from any federal, state, local, foreign, national, supernational or supranational government or political subdivision thereof, or any agency or instrumentality of such government or political subdivision, or any self-regulated organization or other non-governmental regulatory authority or quasi-governmental authority, or any arbitrator, court or tribunal of competent jurisdiction, including without limitation, the International Atomic Energy Agency (IAEA), the Nuclear Suppliers Group (NSG), the South African Nuclear Energy Corporation (NECSA) and the Council for the Non-Proliferation of Weapons of Mass Destruction (NPC) (each, a "**Governmental Authority**"), that may be or become necessary for the Company Group to conduct its business and operations as currently conducted and as proposed to be conducted in the United States, South Africa and other jurisdictions worldwide.

   (b) The Consultant will assist the Company Group to make, or cause or be made, all filings and submissions required under any law applicable to the Company Group to conduct its business and operations as currently conducted and as proposed to be conducted in the United States, South Africa and other jurisdictions worldwide.

   (c) Without limiting the generality of the Consultant's agreements and undertakings pursuant to subsections (a) and (b) above, Consultant will use all best efforts to:

   (i) respond to any inquiries by any Governmental Authority regarding Permits or regulatory matters with respect to the Company Group;

   (ii) avoid the imposition of any order or the taking of any action that would restrain, alter or enjoin the business or operations of the Company Group in South Africa and other jurisdictions worldwide; and

   (iii) in the event any order, writ, judgment, injunction, decree, stipulation, determination or award entered by or with any Governmental Authority (each, a "**Governmental Order**") adversely affecting the ability of the Company Group to conduct its business and operations in South Africa and other jurisdictions worldwide has been issued, to have such Governmental Order vacated or lifted.

2. PAYMENT SCHEDULE:

The payment schedule below reflects the cash payments that will be made to the Consultant in the event that a Licensing Upfront Payment is paid to the Company (or one of its subsidiaries). "**Licensing Upfront Payment**" means an initial non-refundable, non-creditable, upfront cash payment related to the development and/or otherwise disposition of the ASP Technology. For the avoidance of doubt, the Upfront Payment shall not be refundable and is in addition to and not a prepayment of any royalties or any other sums payable to the Company.

The parties had previously agreed that upfront payments relating to the licensing of Uranium to a third party would be split in a ratio between the parties, 66%:34%, with 66% due to the consultants. This agreement re-defines the ratios more specifically to each individual consultant, depending on time passed, hence on magnitude of investments by ASP Isotopes into development of Uranium project.

Period from date of signing this Consulting Agreement	Paid immediately to the Consultant	Retained in the Company	Consultant's ownership in ASPI	Consultant's share of Retained fee within ASPI	Effective rate to the Consultant
Within 3 months	25%	75%	12.3%	9.2%	34.2%
Between 3 and 9 months	15%	85%	12.3%	10.5%	25.5%
After 9 months	5%	95%	12.3%	11.7%	16.7%

ASP Isotopes Inc.
433 Plaza Real, Suite 275
Boca Raton, FL 33432

January 20, 2022

Dr. Hendrik Strydom

Building 46, CSIR Campus

Meiring Naude Road
Brummeria, Pretoria, 0184

Dear Dr. Strydom,

This letter agreement (this "**Agreement**") sets forth the terms and conditions whereby you agree to provide certain services (as described in Schedule 1) to ASP Isotopes Inc., a Delaware corporation (the "**Company**").

1. SERVICES.

1.1 The Company hereby engages you, and you hereby accept such engagement, as an independent contractor to provide certain services to the Company on the terms and conditions set forth in this Agreement.

1.2 You shall provide to the Company the services set forth in Schedule 1 (the "**Services**").

1.3 The Company does not and shall not control or direct the manner or means by which you perform the Services.

1.4 As set forth in Schedule 1, the Company shall provide you with access to its premises, materials, information, and systems to the extent necessary for the performance of the Services. Unless otherwise specified in Schedule 1, you shall furnish, at your own expense, the materials, equipment, and other resources necessary to perform the Services.

1.5 You shall comply with all rules and procedures communicated to you in writing by the Company, including those related to safety, security, and confidentiality.

2. TERM. The term of this Agreement shall commence as of the date set forth above and shall continue until the Services are completed, unless earlier terminated in accordance with Section 10 (the "**Term**"). Any extension of the Term will be subject to mutual written agreement between you and the Company (referred to collectively as the "**Parties**").

3. FEES AND EXPENSES.

3.1 As full compensation for the Services and the rights granted to the Company in this Agreement, the Company shall pay you a fee (the "**Fees**") set forth in Schedule 1.

3.2 All travel should be approved by the Company prior to booking.

3.3 The Company shall pay all undisputed Fees within 30 calendar days after the Company's receipt of an invoice submitted by you in accordance with the payment schedule set forth in Schedule 1.

4. RELATIONSHIP OF THE PARTIES.

4.1 You are an independent contractor of the Company, and this Agreement shall not be construed to create any association, partnership, joint venture, employment, or agency relationship between you and the Company for any purpose. You have no authority (and shall not hold yourself out as having authority) to bind the Company and you shall not make any agreements or representations on the Company's behalf without the Company's prior written consent.

4.2 Without limiting Section 4.1, you will not be eligible to participate in any vacation, group medical or life insurance, disability, profit sharing or retirement benefits, or any other fringe benefits or benefit plans offered by the Company to its employees, and the Company will not be responsible for withholding or paying any income, payroll, Social Security, or other federal, state, or local taxes, making any insurance contributions, including for unemployment or disability, or obtaining workers' compensation insurance on your behalf. You shall be responsible for, and shall indemnify the Company against, all such taxes or contributions, including penalties and interest. Any persons employed or engaged by you in connection with the performance of the Services shall be your employees or contractors and you shall be fully responsible for them and indemnify the Company against any claims made by or on behalf of any such employee or contractor.

5. INTELLECTUAL PROPERTY RIGHTS.

5.1 You hereby irrevocably assign to the Company, for no additional consideration, your entire right, title, and interest throughout the world in and to all results and proceeds of the Services performed under this Agreement, including but not limited to the deliverables set out in Schedule 1 (collectively, the "**Deliverables**") and all other writings, technology, inventions, discoveries, processes, techniques, methods, ideas, concepts, research, proposals, and materials, and all other work product of any nature whatsoever, that are created, prepared, produced, authored, edited, modified, conceived, or reduced to practice in the course of performing the Services or other work performed in connection with the Services or this Agreement (collectively, and including the Deliverables, "**Work Product**") including all patents, copyrights, trademarks (together with the goodwill symbolized thereby), trade secrets, know-how, and other confidential or proprietary information, and other intellectual property rights (collectively "**Intellectual Property Rights**") therein, including the right to sue for past, present, and future infringement, misappropriation, or dilution thereof.

5.2 To the extent any copyrights are assigned under this Section 5, you hereby irrevocably waive in favor of the Company, to the extent permitted by applicable law, any and all claims you may now or hereafter have in any jurisdiction to all rights of paternity or attribution, integrity, disclosure, and withdrawal and any other rights that may be known as "moral rights" in relation to all Work Product to which the assigned copyrights apply.

5.3 You shall make full and prompt written disclosure to the Company of any inventions or processes, as such terms are defined in 35 U.S.C. § 100, that constitute Work Product, whether or not such inventions or processes are patentable or protected as trade secrets. You shall not disclose to any third party the nature or details of any such inventions or processes without the prior written consent of the Company. Any patent application for or application for registration of any Intellectual Property Rights in any Work Product that you may file during the Term or at any time thereafter will belong to the Company, and you hereby irrevocably assign to the Company, for no additional consideration, your entire right, title, and interest in and to such application, all Intellectual Property Rights disclosed or claimed therein, and any patent or registration issuing or resulting therefrom.

5.4 Upon the request of the Company, during and after the Term, you shall promptly take such further actions, including execution and delivery of all appropriate instruments of conveyance, and provide such further cooperation, as may be necessary to assist the Company to apply for, prosecute, register, maintain, perfect, record, or

enforce its rights in any Work Product and all Intellectual Property Rights therein. In the event the Company is unable, after reasonable effort, to obtain your signature on any such documents, you hereby irrevocably designate and appoint the Company as your agent and attorney-in-fact, to act for and on your behalf solely to execute and file any such application or other document and do all other lawfully permitted acts to further the prosecution and issuance of patents, copyrights, or other intellectual property protection related to the Work Product with the same legal force and effect as if you had executed them. You agree that this power of attorney is coupled with an interest.

5.5 Notwithstanding Section 5.1, to the extent that any of your pre-existing materials are incorporated in or combined with any Deliverable or otherwise necessary for the use or exploitation of any Work Product, you hereby grant to the Company an irrevocable, worldwide, perpetual, royalty-free, non-exclusive license to use, publish, reproduce, perform, display, distribute, modify, prepare derivative works based upon, make, have made, sell, offer to sell, import, and otherwise exploit such preexisting materials and derivative works thereof. The Company may assign, transfer, and sublicense (through multiple tiers) such rights to others without your approval.

5.6 As between you and the Company, the Company is, and will remain, the sole and exclusive owner of all right, title, and interest in and to any documents, specifications, data, know-how, methodologies, software, and other materials provided to you by the Company ("**Company Materials**"), and all Intellectual Property Rights therein. You have no right or license to reproduce or use any Company Materials except solely during the Term to the extent necessary to perform your obligations under this Agreement. All other rights in and to the Company Materials are expressly reserved by the Company. You have no right or license to use the Company's trademarks, service marks, trade names, logos, symbols, or brand names.

5.7 You shall require each of your employees and contractors to execute written agreements containing obligations of confidentiality and non-use and assignment of inventions and other work product consistent with the provisions of this Section 5 prior to such employee or contractor providing any Services under this Agreement.

6. CONFIDENTIALITY.

6.1 You acknowledge that you will have access to information that is treated as confidential and proprietary by the Company including without limitation the existence and terms of this Agreement, trade secrets, technology, and information pertaining to business operations and strategies, customers or anticipated customers, pricing, marketing, finances, sourcing, personnel, or operations of the Company, its affiliates, or their suppliers or customers anticipated suppliers or anticipated customers, in each case whether spoken, written, printed, electronic, or in any other form or medium (collectively, the "**Confidential Information**"). Any Confidential Information that you access or develop in connection with the Services, including but not limited to any Work Product, shall be subject to the terms and conditions of this clause. You agree to treat all Confidential Information as strictly confidential, not to disclose Confidential Information or permit it to be disclosed, in whole or part, to any third party without the prior written consent of the Company in each instance, and not to use any Confidential Information for any purpose except as required in the performance of the Services. You shall notify the Company immediately in the event you become aware of any loss or disclosure of any Confidential Information.

6.2 Confidential Information shall not include information that:

(a) is or becomes generally available to the public other than through your breach of this Agreement; or

(b) is communicated to you by a third party that had no confidentiality obligations with respect to such information.

6.3 Nothing herein shall be construed to prevent disclosure of Confidential Information as may be required by applicable law or regulation, or pursuant to the valid order of a court of competent jurisdiction or an authorized government agency, provided that the disclosure does not exceed the extent of disclosure required by such law, regulation, or order. You agree to provide written notice of any such order to an authorized officer of the Company within 24 hours of receiving such order, but in any event sufficiently in advance of making any disclosure to permit the Company to contest the order or seek confidentiality protections, as determined in the Company's sole discretion.

6.4 Notice of Immunity Under the Defend Trade Secrets Act of 2016 ('**DTSA**"). Notwithstanding any other provision of this Agreement:

(a) You will not be held criminally or civilly liable under any federal or state trade secret law for any disclosure of a trade secret that:

(i) is made: (A) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (B) solely for the purpose of reporting or investigating a suspected violation of law; or

(ii) is made in a complaint or other document that is filed under seal in a lawsuit or other proceeding.

(b) If you file a lawsuit for retaliation by the Company for reporting a suspected violation of law, you may disclose the Company's trade secrets to your attorney and use the trade secret information in the court proceeding if you:

(i) file any document containing the trade secret under seal; and

(ii) do not disclose the trade secret, except pursuant to court order.

7. REPRESENTATIONS AND WARRANTIES.

7.1 You represent and warrant to the Company that:

(a) you have the right to enter into this Agreement, to grant the rights granted herein, and to perform fully all of your obligations in this Agreement;

(b) your entering into this Agreement with the Company and your performance of the Services do not and will not conflict with or result in any breach or default under any other agreement to which you are subject;

(c) you have the required skill, experience, and qualifications to perform the Services, you shall perform the Services in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services, and you shall devote sufficient resources to ensure that the Services are performed in a timely and reliable manner;

(d) you shall perform the Services in compliance with all applicable federal, state, and local laws and regulations, including by maintaining all licenses, permits, and registrations required to perform the Services;

(e) the Company will receive good and valid title to all Work Product, free and clear of all encumbrances and liens of any kind; and

(f) all Work Product is and shall be your original work (except for material in the public domain or provided by the Company) and does not and will not violate or infringe upon the intellectual property right or any other right whatsoever of any person, firm, corporation, or other entity.

7.2 The Company hereby represents and warrants to you that:

(a) it has the full right, power, and authority to enter into this Agreement and to perform its obligations hereunder; and

(b) the execution of this Agreement by its representative whose signature is set forth at the end of this Agreement has been duly authorized by all necessary corporate action.

8. INDEMNIFICATION.

8.1 You shall defend, indemnify, and hold harmless the Company and its affiliates and their officers, directors, employees, agents, successors, and assigns from and against all losses, damages, liabilities, deficiencies, actions, judgments, interest, awards, penalties, fines, costs, or expenses of whatever kind (including reasonable attorneys' fees) arising out of or resulting from:

(a) bodily injury, death of any person, or damage to real or tangible personal property resulting from your acts or omissions; or

(b) your breach of any representation, warranty, or obligation under this Agreement.

8.2 The Company may satisfy such indemnity (in whole or in part) by way of deduction from any payment due to you.

9. INSURANCE. During the Term, you shall maintain in force adequate workers' compensation, commercial general liability, errors and omissions, and other forms of insurance, in each case with insurers reasonably acceptable to the Company, with policy limits sufficient to protect and indemnify the Company and its affiliates, and each of their officers, directors, agents, employees, subsidiaries, partners, members, controlling persons, and successors and assigns, from any losses resulting from your acts or omissions or the acts or omissions of your agents, contractors, servants, or employees. The Company shall be listed as additional insured under such policy, and you shall forward a certificate of insurance verifying such insurance upon the Company's written request, which certificate will indicate that such insurance policies may not be canceled before the expiration of a 30-calendar day notification period and that the Company will be immediately notified in writing of any such notice of termination.

10. TERMINATION.

10.1 You or the Company may terminate this Agreement without cause upon 30 calendar days' written notice to the other party to this Agreement. In the event of termination pursuant to this clause, the Company shall pay you on a pro-rata basis any Fees then due and payable for any Services completed up to and including the date of such termination.

10.2 You or the Company may terminate this Agreement, effective immediately upon written notice to the other party to this Agreement, if the other party breaches this Agreement, and such breach is incapable of cure, or with respect to a breach capable of cure, the other party does not cure such breach within 10 calendar days after receipt of written notice of such breach.

10.3 Upon expiration or termination of this Agreement for any reason, or at any other time upon the Company's written request, you shall promptly after such expiration or termination:

(a) deliver to the Company all Deliverables (whether complete or incomplete) and all materials, equipment, and other property provided for your use by the Company;

(b) deliver to the Company all tangible documents and other media, including any copies, containing, reflecting, incorporating, or based on the Confidential Information;

(c) permanently erase all of the Confidential Information from your computer systems; and

(d) certify in writing to the Company that you have complied with the requirements of this clause.

10.4 The terms and conditions of this clause and Section 4, Section 5, Section 6, Section 7, Section 8, Section 11, Section 12, Section 13, and Section 14 shall survive the expiration or termination of this Agreement.

11. ASSIGNMENT. You shall not assign any rights or delegate or subcontract any obligations under this Agreement without the Company's prior written consent. Any assignment in violation of the foregoing shall be deemed null and void. The Company may freely assign its rights and obligations under this Agreement at any time. Subject to the limits on assignment stated above, this Agreement will inure to the benefit of, be binding on, and be enforceable against each of the Parties hereto and their respective successors and assigns.

12. REMEDIES. In the event you breach or threaten to breach Section 6 of this Agreement, you hereby acknowledge and agree that money damages would not afford an adequate remedy and that the Company shall be entitled to seek a temporary or permanent injunction or other equitable relief restraining such breach or threatened breach from any court of competent jurisdiction without the necessity of showing any actual damages, and without the necessity of posting any bond or other security. Any equitable relief shall be in addition to, not in lieu of, legal remedies, monetary damages, or other available forms of relief.

13. GOVERNING LAW, JURISDICTION, AND VENUE. This Agreement and all related documents including all schedules attached hereto and all matters arising out of or relating to this Agreement and the Services provided hereunder, whether sounding in contract, tort, or statute, for all purposes shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to any conflict of laws principles that would cause the laws of any other jurisdiction to apply. Any action or proceeding by either of the Parties to enforce this Agreement shall be brought in any state or federal court located in the State of New York, County of New York. The Parties hereby irrevocably submit to the non-exclusive jurisdiction of these courts and waive the defense of inconvenient forum to the maintenance of any action or proceeding

in such venue.

14. MISCELLANEOUS.

14.1 You shall not export, directly or indirectly, any technical data acquired from the Company, or any products utilizing any such data, to any country in violation of any applicable export laws or regulations.

14.2 All notices, requests, consents, claims, demands, waivers, and other communications hereunder (each, a "**Notice**") shall be in writing and addressed to the Parties at the addresses set forth on the first page of this Agreement (or to such other address that may be designated by the receiving party from time to time in accordance with this Section). All Notices shall be delivered by personal delivery, nationally recognized overnight courier (with all fees prepaid), email, or certified or registered mail (in each case, return receipt requested, postage prepaid). Except as otherwise provided in this Agreement, a Notice is effective only if: (a) the receiving party has received the Notice; and (b) the party giving the Notice has complied with the requirements of this Section.

14.3 This Agreement, together with any other documents incorporated herein by reference and related exhibits and schedules, constitutes the sole and entire agreement of the Parties to this Agreement with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations, and warranties, both written and oral, with respect to such subject matter.

14.4 This Agreement may only be amended, modified, or supplemented by an agreement in writing signed by each party hereto, and any of the terms thereof may be waived, only by a written document signed by each party to this Agreement or, in the case of waiver, by the party or parties waiving compliance.

14.5 If any term or provision of this Agreement is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

14.6 This Agreement may be executed in multiple counterparts and by electronic signature, each of which shall be deemed an original and all of which together shall constitute one instrument.

[*Signature Page Follows*]

If this letter accurately sets forth our understanding, kindly execute the enclosed copy of this letter and return it to the undersigned.

Very truly yours,

ASP Isotopes Inc.

By: /s/ Paul Mann
Name: Paul Mann
Title: Chief Executive Officer

ACCEPTED AND AGREED:

By: /s/ Hendrik Strydom
(signature)

Name: Hendrik Strydom
(printed name)

Title: Consultant

Date: 20 January 2022

Federal Tax Id. No./Social Security No.:

SCHEDULE 1

1. SERVICES:

The consultant will assist the Company or any one of its subsidiaries in developing the ASP Technology for the enrichment of Uranium and forming a licensing transaction relating to the enrichment of Uranium.

2. PAYMENT SCHEDULE:

The payment schedule below reflects the cash payments that will be made to the Consultant in the event that a Licensing Upfront Payment is paid to the Company (or one of its subsidiaries). "**Licensing Upfront Payment**" means an initial non-refundable, non-creditable, upfront cash payment related to the development and/or otherwise disposition of the ASP Technology. For the avoidance of doubt, the Upfront Payment shall not be refundable and is in addition to and not a prepayment of any royalties or any other sums payable to the Company.

The parties had previously agreed that upfront payments relating to the licensing of Uranium to a third party would be split in a ratio between the parties, 66%:34%, with 66% due to the consultants. This agreement re-defines the ratios more specifically to each individual consultant, depending on time passed, hence on magnitude of investments by ASP Isotopes into development of Uranium project.

Period from date of signing this Consulting Agreement	Paid immediately to the Consultant	Retained in the Company	Consultant's ownership in ASPI	Consultant's share of Retained fee within ASPI	Effective rate to the Consultant
Within 3 months	25%	75%	12.3%	9.2%	34.2%
Between 3 and 9 months	15%	85%	12.3%	10.5%	25.5%
After 9 months	5%	95%	12.3%	11.7%	16.7%

Exhibit 10.14

Chief Scientific Adviser Agreement

This Chief Scientific Adviser (the "**Agreement**") is made effective as of January __, 2022, by and between ASP Isotopes Inc., a Delaware corporation (the "**Company**"), and Dr Einar Ronander, an individual resident in South Africa (the "**Adviser**").

WHEREAS, the Company's Board of Directors (the "**Board**") desires to obtain the advice and counsel of the Adviser regarding matters within the Adviser's experience and expertise and the Company's actual or potential business, technology and products;

WHEREAS, the Board would like to engage the Adviser as an independent contractor to act as Chief Scientific Adviser to the Board, and the Adviser is willing to provide advice and services to the Board on the terms and conditions set forth in this Agreement; and

WHEREAS, the Company wishes to protect and preserve the confidentiality of certain Confidential Information (as defined herein) which the Company considers vital to its business and goodwill and protect it from misuse.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Service as Chief Scientific Adviser. The Adviser shall serve as Chief Scientific Adviser to the members of the Board on a non-exclusive basis for the term of this Agreement. The Adviser shall perform services hereunder as an independent contractor and not as an employee, agent, joint venturer or partner of the Company. The Adviser shall have no power or authority to act for, represent or bind the Company or its affiliates in any manner whatsoever, except as may be expressly agreed on each occasion, in writing, by the Company and the Board. The Adviser agrees to take no action that expresses or implies that the Adviser has such power or authority.

2. Duties. During the term of this Agreement, the Adviser will provide advice and counsel to the members of the Board as may be reasonably requested from time to time, including by rendering the services described on Schedule 0 to this Agreement to the Board. The Adviser will report directly to the members of the Board in the course of performing the Adviser's duties, unless otherwise expressly directed by the members of the Board.

3. Term. This Agreement shall have a term of one (1) year, and shall renew automatically for successive one (1) year periods, provided that either party may terminate the Agreement, with or without reason, by written notice to the other, and provided further that the provisions of Section 4.2, Section 6, Section 7 and Section 9.2 shall survive any termination or expiration of this Agreement. In the event this Agreement is terminated by either party, pro rata fees and unpaid expenses through the termination date shall be paid to the Adviser promptly thereafter.

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4. Fees.

4.1 As compensation for the Adviser's services under this Agreement, the Company shall pay to the Adviser the compensation described on Schedule 0 to this Agreement.

4.2 The Adviser agrees to pay all federal, state and local taxes applicable to any compensation paid to the Adviser pursuant to this Agreement. The terms and provisions of this Section 4.2 shall survive termination or expiration of this Agreement.

5. Expenses. The Company agrees to reimburse the Adviser promptly for reasonable out-of-pocket expenses incurred in connection with the Adviser's services, provided that any single expense item in excess of $1,500 or monthly expense in excess of $3,000 in the aggregate shall require pre-approval by the Company, and the Adviser shall provide appropriate documentation of all expenses.

6. Indemnification. In the performance of services under this Agreement, the Adviser shall be obligated to act only in good faith, and shall not be liable to the Company for errors in judgment that are not the result of willful misconduct. The Company agrees to indemnify and hold the Adviser harmless from and against any and all losses, claims, expenses, damages or liabilities, joint or several, to which the Adviser may become subject (including the costs of any investigation and all reasonable attorneys' fees and costs) or incurred by the Adviser, to the fullest extent lawful, in connection with any pending or threatened litigation, legal claim or proceeding arising out of or in connection with the services rendered by the Adviser under this Agreement; *provided, however*, that the foregoing indemnity shall not apply to any such losses, claims, related expenses, damages or liabilities arising out of or in connection with the Adviser's willful misconduct or fraud, or material breach this Agreement. The terms and provisions of this Section 6 shall survive termination or expiration of this Agreement.

7. Confidential Information; Developments; Non-Solicitation.

7.1 As used in this Agreement, "**Confidential Information**" means any and all confidential or proprietary technical, trade and business information furnished, in any medium, or disclosed in any form or method, including orally, by the Company to the Adviser, or discovered by the Adviser through any means, including observation, including, but not limited to, information about the Company's employees, officers, directors, suppliers, customers, affiliates, businesses and business relationships; manufacturing processes and methods, operating technique, practice, course of dealing, plan or strategy, sources of supply, customer lists and markets; sales, profits, pricing, other financial data and know-how; financial projections, business plans, marketing plans, marketing materials, logos and designs; personnel statistics; research; computer hardware and software; current and future products, designs, developments, capabilities, inventions, prototypes, models, drawings, specifications, methods and trade secrets; technical data, inventions, processes, algorithms, formulae, franchises, databases, computer programs, user interfaces, source codes, object codes, architectures and structures, display screens, layouts, development tools and instructions, templates and other trade secrets; and such other information normally understood to be confidential or otherwise designated as such in writing by the Company, as well as information discerned from, based on or relating to any of the foregoing which may be prepared or created by the Adviser. "Confidential Information" shall not include:

(a) information that is publicly available as of the date of this Agreement; or

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(b) information that subsequently becomes publicly available or generally known in the industry through no fault of the Adviser, provided that such information shall be deemed Confidential Information until such time as it becomes publicly available or generally known.

7.2 The Adviser shall retain all Confidential Information in trust for the sole benefit of the Company, its successors and assigns, and shall comply with any and all procedures adopted from time to time to protect and preserve the confidentiality of any Confidential Information. The Adviser shall not at any time, during or after the term of this Agreement, directly or indirectly, divulge, use or permit the use of any Confidential Information, except as required by the Adviser's services under this Agreement. Adviser agrees to employ reasonable steps to protect Confidential Information from unauthorized or inadvertent disclosure. Upon expiration or termination of this

Agreement and upon the Company's request during the term of this Agreement, the Adviser shall promptly return any and all tangible Confidential Information (whether written or electronic) to the Company, including all copies, abstracts or derivatives thereof.

7.3 The Company shall own all right, title and interest relating to all inventions, improvements, discoveries, methods, developments, software, and works of authorship, whether patentable or not, which are created, made, conceived or reduced to practice by the Adviser or jointly with others in the course of the Adviser's performance of services under this Agreement or using the Company's Confidential Information (collectively, "**Developments**"). The Adviser agrees to make full and prompt disclosure to the Company of all Developments and provide all Developments to the Company. Adviser hereby assigns to the Company or its designee all of the Adviser's right, title and interest in and to any and all Developments. The Adviser agrees to cooperate fully with the Company, both during and after the term of this Agreement, with respect to the procurement, maintenance and enforcement of intellectual property rights (both in the United States and foreign countries) relating to any Developments. The Adviser shall sign all documents which may be necessary or desirable in order to protect the Company's rights in and to any Developments, and the Adviser hereby irrevocably designates and appoints each officer of the Company as the Adviser's agent and attorney-in-fact to execute any such documents on the Adviser's behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Developments. Notwithstanding anything to the contrary above, this Section 7.3 does not apply to an invention for which no equipment, supplies, facility or trade secret information of the Company was used and which was developed entirely on the Adviser's own time, unless the invention relates to the business of the Company or to the Company's actual or demonstrably anticipated research or development, or the invention results from any work performed by the Adviser for the Company.

7.4 The Adviser acknowledges that the Company competes with other businesses that are or could be located anywhere; that the provisions of this Agreement are reasonable and necessary to protect and preserve the Company's business interests; and that the unauthorized disclosure, use or disposition of any Confidential Information in breach of this Agreement may cause irreparable harm and significant injury for which there is no adequate remedy at law. Accordingly, the parties agree that the Company shall have the right to immediate injunctive relief in the event of any breach or threatened breach of the obligations in this Section 7, without security or bond, in addition to any other remedies that may be available to the Company at law or in equity. The terms and provisions of this Section 7 shall survive termination or expiration of this Agreement.

7.5 As additional protection for Confidential Information, Adviser agrees that during the period it is providing services under this Agreement, and for one year thereafter, Adviser will not encourage or solicit any employee or consultant of the Company to leave the Company for any reason.

8. Publicity. The Company shall, with prior written approval by the Adviser, have the right to use the name, biography and picture of the Adviser on the Company's website, marketing and advertising materials.

9. Other Relationships.

9.1 During the term of this Agreement, the Adviser shall provide the Company with prior written notice if the Adviser intends to provide any services, as an employee, consultant or otherwise, to any person, company or entity that competes directly with the Company, which written notice shall include the name of the competitor. It is understood that, in such event, the Company will review whether the Adviser's activities are consistent with the Adviser remaining an adviser to the Company.

9.2 During the period that is six (6) months after the expiration or termination of this Agreement, the Adviser shall provide the Company with written notice any time that the Adviser provides any services, as an employee, consultant or otherwise, to any person, company or entity that competes directly with the Company. This Section 9.2 shall survive termination or expiration of this Agreement.

9.3 Notwithstanding anything to the contrary contained herein, the Company hereby consents to the Adviser providing services, as an employee, consultant or otherwise, to the following companies: Klydon Proprietary Limited, a South Africa company.

10. No Conflicts. The Adviser represents and warrants to the Company that the Adviser is free to enter into this Agreement and the services to be provided pursuant to this Agreement are not in conflict with any other contractual or other obligation to which the Adviser is bound.

11. Notices. Notices are to be delivered in writing, in the case of the Company, to thye Company's then-current principal place of business, attention: Chief Executive Officer, and in the case of the Adviser, to the address or email address set forth below Adviser's signature hereto, or to such other address as may be given by each party from time to time under this Section. Notices shall be deemed properly given upon personal delivery, the day following deposit by overnight carrier, or three (3) days after deposit in the U.S. mail.

12. Parties in Interest. This Agreement is made solely for the benefit of the Adviser and the Company, its shareholders, directors and officers. No other person shall acquire or have any right under or by virtue of this Agreement.

13. Entire Agreement; Amendments; Severability; Counterparts. This Agreement constitutes the entire agreement and understanding of the parties, and supersedes any and all previous agreements and understandings, whether oral or written, between the parties with respect to the matters set forth in this Agreement. No provision of this Agreement may be amended, modified or waived, except in a writing signed by the parties. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision, and if any restriction in this Agreement is found by a court to be unreasonable or unenforceable, then such court may amend or modify the restriction so it can be enforced to the fullest extent permitted by law. The section headings in this Agreement have been inserted as a matter of convenience of reference and are not a part of this Agreement. This Agreement may be executed by electronic signature in any number of counterparts, each of which together shall constitute one and the same instrument.

14. Applicable Law; Jurisdiction. This Agreement shall be interpreted and construed in accordance with the laws of Delaware. Any and all claims, controversies and causes of action arising out of or relating to this Agreement, whether sounding in contract, tort or statute, shall be governed by the laws of the Delaware, including its statutes of limitations, without giving effect to any conflict-of-laws rule that would result in the application of the laws of a different jurisdiction.

15. Authority. This Agreement has been duly authorized, executed and delivered by and on behalf of the Company and the Adviser.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

ASP Isotopes Inc.

By: /s/ Paul Mann
Name: Paul Mann
Title: Chief Executive Officer

Adviser:

/s/ Einar Ronander
Dr Einar Ronander

Address: Building 46, CSIR Campus
Meiring Naude Road
Brummeria, Pretori, 0184

Email: einar.ronander@klydon.co.za

SCHEDULE 1

DUTIES

As a Board Adviser, you shall:

- Maintain the role of Chief Scientific Advisor. Should the Company create a Scientific Advisory Board in the future, you will be deemed to be the chairman of that Scientific Advisory Board.
- Attend and participate in Board meetings at the board's invitation only. If you are invited to attend a Board meeting, your status will be as an observer, without any right to vote on matters submitted to a vote of the Board.
- Participate in advisory calls with members of the Board or Company's senior management.
- Be available upon reasonable advance notice to provide telephonic guidance and consultation to members of the Board or Company's senior management on an as-needed basis.

SCHEDULE 2

COMPENSATION

As compensation for the Adviser's services under this Agreement, the Company shall pay to the Adviser a fee of Fifty Thousand Dollars ($50,000) each fiscal quarter, which shall be paid on or about March 31, June 30, September 30, December 31 for services provided during the quarter just ended.

The Company shall not be responsible for withholding or paying any income, payroll, Social Security or other federal, state or local taxes, making any insurance contributions, including unemployment or disability, or obtaining worker's compensation insurance on the Adviser's behalf. However, the Company may file informational returns with the appropriate federal and state agencies regarding such payments. The Adviser is solely responsible for the payment of all taxes and contributions on the Adviser's behalf.

AGREEMENT OF LEASE

BETWEEN

MORGAN CREEK PROPERTIES 311 Pty(Ltd)

Registration Number: 2019/535043/07
VAT REGISTRATION NUMBER: 4420184899

HEREIN REPRESENTED BY

HENDRIK SPOELSTRA
ID Number: 680803 5069 087

(Hereinafter referred to as "The LESSOR")

and

PDS Photonica Holdings South Africa (PTY) LTD
Registration Number: 2021/701779/07

HEREIN REPRESENTED BY
Full Names: Robert Ainscow
Director

Passport Number: (UNITED KINGDOM)

BUSINESS ADDRESS:
33 Eland street
Koedoespoort
Pretoria

(Hereinafter referred to as "The LESSEE")

1 PREVIOUS AGREEMENTS

This agreement supersedes all previous agreements between Molybdos, in Business rescue, and Morgan Creek properties 311 (Pty) Ltd, rendering all previous agreements null and void.

2 THE LEASED PREMISES

2.1 The "site" means PORTION 1 OF ERF 113 KOEDOESPOORT, situated at 33 Eland street, Koedoespoort

2.2 The "building" means the buildings on the site

2.3 The leased premises/ premises means the area set out and more fully described in Drawing A, B and C consisting of:

2.3.1 - 1400 m^2 of the main building, in what is known as 2nd floor, as per drawing A.

2.3.2 – 250 m^2Outbuilding first floor. As per Drawing B.

2.3.3 – Sole use - Yard space as per drawing as per Drawing C.

3 AGREEMENT OF LEASE

The LESSOR hereby leases the Leased premises to the LESSEE, which hires the same from the LESSOR, in the 'as is' state, including all improvements and latent defects as per alterations made by Molybdos. The permanent structural improvements, including the air handling system is the sole property of the LESSOR. The LESSEE is allowed to use these at his own risk, cost and benefit during the lease period.

4 THE COMMENCEMENT AND DURATION OF THE LEASE

This lease shall:

4.1 Commence on:

1 October 2021 Building Rental

(The Commencement date)

4.2 All sections of the lease terminate on:

31 December 2030

(The Expiration date)

4.3 The Lessee shall receive beneficial occupation of the leased area on the commencement date.

5 DEPOSITS (Payable within seven calendar days from date on signature of the rental agreement, account as per invoice.)

5.1 Rental deposit: Within seven calendar days from the date upon which the LESSEE signs this document he shall pay an amount equal to eighteen (18) months of the undiscounted monthly rental, payable in respect of the FIRST month of the lease period to the LESSOR.

The amount may be utilised by the LESSOR to defray the costs of any breakages or damage done by the LESSEE to or in respect of the premises or to make up any amount due and payable by the LESSEE whom the LESSEE has failed to pay. As soon as any part of the deposit has been utilised by the LESSOR, as aforesaid, the LESSEE will be obliged immediately to pay an equivalent amount to the LESSOR so as to ensure that the LESSOR will at all times be in possession of the full amount of the deposit and the LESSEE shall not be entitled to off-set rental and cost or any other amounts owing against the deposit.

The Lessee is obliged to top up the deposit annually on date of increase, to amount to an amount equal to 18 months rent calculated on the increased monthly rental.

5.2 Services:

The following principle regarding deposits will apply for the duration of the contract, as changes are expected i.t.o. the supply of services to the premises as a whole.

5.2.1 The LESSEE will at all times pre-pay a deposit amount equal to three months value of his full monthly account for these services.

5.2.2 These deposits will be used to pay the services, after which the LESSEE will be charged the actual consumption and ‘connection fee/ availability fee/ maximum demand’

5.2.3 The account will be calculated as per the law/regulations at the time of calculation. If different options are available, it will be at the sole discretion of the LESSOR to determine which option is most applicable.

5.3 Electricity deposit

5.3.1 A Deposit equal to three month’s total electricity account will be invoiced. Upon signing of the contract, a conservative estimate will be calculated.

5.3.2 The deposit will be adjusted from time to time to reflect the actual usage. If usage declines, the refund of the deposit will be done after 12 months’ of constant lower usage.

5.3.3 90 days before the date when the 2.5 MVA supply must be available, the lessee shall pay a deposit of R 500 000 as deposit for the electricity installation, to be invested in an interest bearing investment in terms of section 78(2) A of the Attorneys Act, for the interest benefit of the LESSEE. This deposit will form part of 9.1.

5.3.4 On the day that the increased electricity supply is switched on and available for use by the LESSEE

The LESSOR is entitled to retain the deposit for the full period of the lease and upon termination of the lease either by cancellation thereof or due to effluxion of time the LESSOR shall refund the deposit or any balance thereof to the LESSEE after deduction of any amount for the aforesaid purposes. No interest shall be payable on the deposit to the Lessee, other than set out above.

5.4 Access card deposit

A deposit will be payable for each access card issued and will be refunded in full upon return of the access card, no interest will be payable on the deposit.

6 RENT

Premises

The rent payable by the LESSEE hereunder for the hire of the Leased premises shall, subject to the provision of Annexure “A” be the following

- Rental will be payable monthly, in advance as per Schedule 1.

Parking

- The abovementioned Premises rental excludes the rental costs in respect of the parking bays, of which initial rental shall be charged according to Schedule 1. The number of parking bays rented can be adjusted according to operational needs with 30 day’s notice and is subject to availability.

- Parking will be invoiced monthly throughout the rental period.

Rental escalation, all rental:

After the period of annual fixed escalation (7.5%) ending 30 June 2022, the rent will escalate annually on the first day of July. The escalation will be the calculated average between the "CPI" of the preceding year and 7.5% (fixed).

For purposes for the calculation of the escalation rate "CPI" means the latest available year on year increase in the headline Consumer Price Index (metropolitan areas, all items) as published in the Statistical Release P0141.1 compiled by Statistics South Africa, or, in the absence thereof, a similar index nominated by the Lessor's auditors.

If any dispute about the escalation rate and its calculation arises, the rate of 7.5 % per annum will apply until the dispute is resolved, after which the applicable escalation will be applied retrospectively.

All rent and invoiced consumer account payments shall be made to the financial institution stipulated on the monthly VAT invoices.

The rental amount EXCLUDES all consumption and the Lessee will be invoiced for both the fixed cost according the connection type and all metered consumption including water, electricity, sewerage and waste removal and consumables.

Should any consumer service not be metered at the time of this agreement, the LESSOR is entitled, at any time during the occupation by the Lessee, to install meterage systems and the Lessee will be obliged to pay the amount due for consumption.

7 Electricity supply:

In principle it is agreed that the LESSOR can recover, in advance, all costs arising from the supply of electricity to the LESSEE, whether these costs have been part of this contract or arise from future legislation or an altered supply dispensation

7.1 Additional dedicated electricity supply (2.5 MVA)

7.1.1 The LESSOR agrees to provide 2.5 MVA connection to the lessee, subject to the terms and conditions of this clause.

7.1.2 The installation and supply of 2.5MVA electricity can be made available, if requested. Notice needs to be given, in writing, no less than 4 calendar months before supply is needed.

7.1.3 The LESSEE shall pay a deposit of R 500 000.00 (Five hundred thousand rand), 90 (Ninety)days before commencing with the installation of the dedicated 2.5 MVA supply. This deposit for the electrical installation, to be invested in an interest bearing investment in terms of section 86(4) A of the Legal Practice Act, for the interest benefit of the Lessee.

7.1.4 The LESSOR is entitled to retain the deposit for the full period of the lease and upon termination of the lease either by cancellation thereof or due to effluxion of time, the LESSOR shall refund the balance of the deposit (12 months) twelve months after vacation of the premises to the LESSEE after deduction of any amount, including provision for the 12 month non-use charge of City of Tshwane (COT and for the aforesaid purposes. No interest shall be payable on the deposit to the Lessee, other than specified.

7.1.5 The electricity supply will be 3 Phase, 400V, at the bussbars of the transformer (11 kV – 400 V) transformers at ground level below the rented premises, dedicated to supply the LESSEE.

7.1.6 In consideration for the provision of the infrastructure and dedication of the supply to the LESSEE of said capacity, the LESSEE is obliged to pay a monthly charge in advance, an amount that is equal to 20% of the maximum demand charge, as defined by the City of Tshwane or its successor.

7.1.6.1 A discount equal to the charge in 9.1.4.2 will be allowed against the demand charge of the electricity metered and consumed, with the nett effect that the minimum payable will always be no less than the amount in 7.1.6

7.1.6.2 Said monthly amount will increase in accordance with any changes of the tariffs, fees, charges and scales of the supplier, as adjusted from time to time (presently City of Tshwane Local authority)

7.1.7 At termination of the lease and vacation of the premises, the LESSEE will be obliged to pay all charges levied by the municipality/supplier relating to the lessee's period of occupation, including all charges for non-use of a for a period of twelve months after the premises have been vacated.

7.1.8 Should the LESSEE be of the opinion that the charges of the municipality is invalid or unlawful, the LESSEE will obliged to pay such charges in full to the attorney of the LESSOR to hold in trust for the interest benefit of the successful party, until a court or arbitrator, as the case may be, has decided on the validity of the charges of the municipality/ supplier.

7.1.9 The LESSEE agrees to indemnify the Lessor in regard to the legal costs of any dispute against the municipality relating to the electricity arrangements set out in this paragraph.

7.1.10 The LESSEE accepts all terms and conditions of the supply of electricity by the City of Tshwane and its' successor in title (herein referred to as the municipality) and the Lessor as if the agreement has been entered into between the Lessee as an individual user and the municipality. The LESSEE acknowledges that the provision of electricity is subject to the municipality's practices, tariff changes, legislation and regulations and the application thereof. The LESSEE releases the LESSOR from his obligation to provide the electricity as set herein, should the municipality fail to deliver or limit availability or capacity.

8 USE OF PREMISES

The premises are let for the purpose of being used for running a molybdenum processing plant where gaseous molybdenum compound will be treated. The process comprises several stages of compression and expansion during which the product is purified. The premises will be used for the above and business related to the process and for no other purpose whatsoever, without the prior written consent of the LESSOR, which consent shall not be unreasonably withheld. The LESSOR does not

warrant that the premises are fit or suitable for the said purpose. The premises are hereby let to the LESSEE voetstoots.

9 DOMICILIA AND NOTICES

9.1 The LESSOR chooses its "domicilium citandi et executandi" for all purposes hereunder at:

Morgan Creek management offices, 33 Eland Street, Koedoespoort, Pretoria, South Africa

9.2 The LESSEE chooses its "domicilium citandi et executandi" for all purposes hereunder at

The premises as described in 2.3

9.3 Any notices given in terms of this lease shall be given in writing, or shall be delivered by hand to the respective address provided for in this clause, and shall be deemed to have been received by the addressee on the date of delivery, or on the second business day after posting, as the case may be.

9.4 The LESSOR and the LESSEE shall each be entitled, by fourteen (14) days written notice to the other, to change the address set out above respectively chosen by each of them.

FOR LESSOR :

SIGNED AT PRETORIA ON THIS THE 12 DAY OF OCTOBER 2021

AS WITNESSES : FOR AND ON BEHALF OF :

LESSOR

1…………………………

2………………………… /s/ Hendrik Spoelstra

Duly authorised to act for and on

FULL NAMES : HENDRIK SPOELSTRA

ID no: 680803 5069 087

FOR LESSEE :

SIGNED AT PRETORIA ON THIS THE 12 DAY OF OCTOBER 2021

AS WITNESSES : FOR AND ON BEHALF OF :

LESSEE

1…………………………

2………………………… /s/ Robert Ainscow

FULL NAMES: Robert Donald Ainscow

Duly authorised to act for and on behalf of the LESSEE

RESOLUTION - LESSEE

We,

……………………………………………… ID No ……………………………….

and

……………………………………………… ID No ……………………………….

The Director/s of the Company of :

………

Registration Number : …………………………………………………………………………….

do hereby certify that :

On …………………………2021 the Director/s of the Company passed a resolution in the following terms : "RESOLVED that the Company enter into an agreement with MORGAN CREEK PROPERTIES 311 CC substantially in the form of the LEASE and the annexure thereto submitted to the Director/s of the Company and that any one of the Directors by authorised to execute the LEASE and any other documents that may be necessary to give effect thereto.

(a) This is the LEASE that was submitted to the Directors of the Company.

(b) It was agreed by the Directors that

………………………………………………………………………………..… ID No
………………………………………………………………………………………………. will be

authorised to sign all documentation relevant to leasing the property specified in clause (a).

……………………………… ………………………………

DIRECTORS

ANNEXURE "A"

1 COMMENCEMENTS AND DURATION OF LEASE

(1) The LESSEE herewith indemnifies and holds the LESSOR harmless against any claim by any third party in respect of any liability relating to or arising out of the occupation by Molybdos, the business rescue of Molybdos or any transaction arising from Molybdos or its business rescue.

(2) Should any such claim be made against the LESSOR, the LESSEE will be obliged to settle or defend such claim together with all costs connected therewith.

(3) Should any dispute arise as to when the Leased premises are in fact ready for occupation or as to the commencement date of this LEASE, the decision of the LESSOR architect in regard to such a dispute shall be final and binding on all the parties.

(4) The "commencement date" and 'termination date' shall mean the dates referred to in 4 in the lease agreement

2 RENT

(1) The rental of Phase 1 as set out in Annexure A, is payable on or before 1 October 2021.

(2) Thereafter the monthly rental payable in terms of this LEASE shall be payable monthly in advance, without deduction before, or on the first day of each calendar month.

(3) The LESSOR shall be entitled to appropriate any payment received from the LESSEE to any part or portion of the Lessee's indebtedness to the LESSOR in terms of this lease agreement, particularly in the event that the LESSEE falls into arrears with any amount of whatsoever nature due and owing by the LESSEE to the LESSOR. The LESSOR shall be entitled to appropriate any such payment to whatever amount is due and owing by the LESSEE to the LESSOR, which appropriation shall be in the LESSOR's sole discretion and without prejudice to any of the LESSOR's rights in terms of this agreement.

(4) In the event that the LESSEE's lease agreement expires and the LESSEE remains in occupation of the premises, the LESSEE's lease shall be on a three-monthly tenancy in the sole discretion of the LESSOR, and the LESSEE shall be bound to the terms and conditions of this written lease agreement save that the LESSEE tenancy shall be on a THREE MONTHLY basis.

3 ASSESSMENT RATES

This clause shall become effective when an increase from the local or other responsible authority increases percentage wise more than the annual percentage increase of the rent.

The LESSOR shall pay the property rates, which may be levied by the CITY COUNCIL and/or any other lawfully constituted Authority. The LESSEE shall pay to the LESSOR, in addition to the rental payable hereunder, immediately upon demand therefore an amount equal to that portion of the rates which increased more than the annual increase of the rent as set out in clause 5 of the lease agreement. This additional amount will be added to the rent and will be in proportion to the Lessee's share of the total rentable area in respect of the whole property when fully let.

4 LOCAL AUTHORITY CHARGES AND REGULATIONS

The rental specified in clause 5 of the Lease Agreement is a gross rental and the Lessee will, other than being liable for payment as set out in this paragraph, only be responsible for the share of increases due his presence and business' operation

(1) The LESSEE shall pay on demand to the LESSOR or to the local authority, as the LESSOR may require, the costs of all –

4.1.1 water consumed in the premises, as allowed by the laws and regulations, in addition to the payments for electricity as set out in the special conditions of the lease agreement

4.1.2 Sanitary / sewage fees which is calculated directly in proportion to the water consumed, referred to in 4.1.1 and

4.1.3 refuse removal costs due to the presence and business operation of the lessee in respect of the premises.

4.1.4 Should any amount referred to in Clause 4.1 be levied or assessed in respect of the building as opposed to the premises, the LESSEE shall pay a pro-rata share of the amount levied or assessed in respect of the building, calculated at the election of the LESSOR, according to –

(2) The ratio between the rental payable for the time being by the LESSEE for the premises and the total rental payable for the time being to the LESSOR by all the Lessees of the building

4.2.1 The ratio between the area of the premises for the time being and the total area of the building occupied or capable of being occupied for the time being by Lessees.

(3) In the event that the LESSEE fails to pay for electricity consumed within seven (7) days of demand to effect payment, the LESSOR shall be entitled to claim any damages of whatsoever nature from the LESSEE in this regard.

5 OPERATING COSTS

This clause shall become effective when the increase in operating cost increases percentage wise more than the annual percentage increase of the rent.

The rental specified in clause 5 of the Lease Agreement is a gross rental, excluding consumer charges as set out in paragraph 4

Here off, and the Lessee will only be responsible for the pro-rata share of increases.

(1) Operating costs means all costs, charges, expenditure, and other outgoing reasonably incurred by the LESSOR in managing and/or operating the building (including, but not limited to lifts, escalators, plant and machinery therein, the property and generally the whole building and other developments upon the property.

6 MUNICIPAL AND/OR OTHER REGULATIONS

The LESSEE shall be obliged, at his own expense, to comply with all the requirements of all Municipal or other Laws, By-Laws and regulations as well as requirements from industry specific regulations, directly or indirectly applicable to the leased premises or to the type of business conducted therein by the LESSEE and the LESSOR shall not be called upon at any time to comply with any such requirements.

7 INSURANCE

7.1 The LESSEE agrees to provide to the LESSOR confirmation from the Department for Agriculture and Rural Development that the activity of the company does not carry a statutory requirement for an Environmental Authorisation from the Department.

7.2 Notwithstanding there being no statutory requirement, the LESSEE is obliged to, within 120 days of taking occupation, and before the plant can be operated, obtain and present to the LESSOR a detailed insurance risk assessment, including an environmental risk assessment by a specialised risk assessor, which has to be pre-approved by the LESSOR in writing, such approval not to be unreasonably withheld.

7.3 Failure to obtain detailed insurance risk assessment within the allotted period would prohibit the LESSEE from continuing operations until such requirements have been met.

7.3 The LESSEE shall pay the assessment costs, and any modifications, structural or otherwise, the assessor may indicate that to mitigate risk.

7.4 The LESSEE shall pay on presentation of the invoice pay all the insurance costs relating to the risks of the specialised policy and the costs relating to an increase in the all-risk policy of the complete building. The LESSEE shall have the interest of the LESSOR recorded in the insurance policy and provide proof of such notice to the LESSOR.

7.5 The LESSEE shall pay an amount equal to any excess amount payable in terms of the specialised insurance, as a separate deposit, to be held by the LESSOR as security against any insurance claim.

7.6 The LESSEE shall not store nor permit the storage of any article or do anything upon the Leased premises, which may result in an increase in the Fire Insurance Premium payable on the leased premises or whereby the LESSOR Fire Policy over the leased premises may be rendered void or endangered.

7.7 The LESSOR shall be responsible for the payment of the insurance premiums in respect of normal risks covering the buildings, such Insurance to be effected with any Company, which the LESSOR may determine. Any increase or loading of the premium payable on any such policy by virtue of any operations undertaken by the LESSEE, or arising in any other way by virtue of the LESSEE occupation of the premises shall be borne by the LESSEE and shall be paid by the LESSEE to the LESSOR within seven (7) days of being notified in writing of such amount.

7.8 The LESSEE shall insure any plate glass on the leased premises.

7.9 The LESSEE agrees that all insurance, which the LESSEE has insuring any of the LESSEE property or property of others in the LESSEE possession or under the LESSEE's control, shall contain at all times a waiver of the rights of subrogation against the LESSOR.

8 LIABILITY OF LESSOR

8.7 The LESSEE shall not under any circumstances have any claim or right of action, whatsoever against the LESSOR for damages, loss or otherwise, nor shall it be entitled to withhold or defer payment of rent, by reason of :

8.7.1 the leased premises being in a defective condition or falling into disrepair, or any particular repairs not being effected by the LESSOR, within a period of six months from date of demand, or

8.7.2 Any failure or interruption in the lift service, the supply of water, gas, electricity, heating, telephone, Post Office, the cleaning services (if any), or any other amenities

In or to the leased premises whether such failure or interruption arises from the negligence of the LESSOR, the LESSOR servants, vis major, causes fortuitous or any other cause whatsoever.

8.8 the LESSOR shall not be responsible for any damage to or the loss of any stock, furniture, equipment or other effects, possessions or articles kept in the leased premises (whether in the PROPERTY of the LESSEE or that of anyone else) by rain, hail, lightning or fire, or by reason of riot, political strikes, or as a result of theft or burglary, with or without forcible entry, or through any other cause whatsoever unless caused directly by the LESSOR, nor shall the LESSOR be responsible for any personal injury which may be sustained in or about the leased premises by any of the directors, servants, employees, agents, customers or invitees of the LESSEE or any occupant of the leased premises or any other person, whomsoever.

Whether the person so injured or any dependant of any such injured person, howsoever such injury may be caused, nor shall the LESSOR be responsible for the death, howsoever caused, of any such person occurring in the leased premises, whether to dependants or otherwise. The LESSEE hereby indemnifies the LESSOR against any claim of whatsoever nature that may be made against the LESSOR in respect of the loss of, or damage to anything contained in the leased premises, and such indemnity shall be fully effective notwithstanding that between the LESSOR and any claimant in question, the LESSOR is liable to such claimant in respect of his claim. All the provisions of this clause shall apply and be fully operative, notwithstanding that any loss, damage, loss of life or injury hereinbefore referred to may occur or be sustained in consequence of anything done or omitted by the LESSOR or any of its directors, servants, employees or agents.

9 EXCLUSION OF LIABILITY

Neither the LESSOR nor any of its directors, agents, employees or servants shall be liable for personal injury to, or the death of any person, or loss of, or damage to any property of whatever nature in the premises, or in the building, or on the property, however arising or caused.

The LESSEE hereby indemnifies the LESSOR and its directors, agents, employees or servants against any claim of whatever nature, which may be made against any of them arising out of any of the foregoing occurrences.

10 ALTERATIONS TO PREMISES

10.7 Save as set forth elsewhere in the LEASE, the LESSEE shall not make any alterations or additions of any nature whatsoever to the exterior, roof or interior of the building or the leased premises without the LESSOR prior written consent and shall not at any time have any claim against the LESSOR for improvements effected to the leased premises or the building.

10.8 The LESSEE shall not make any non-structural alterations or additions to the interior of the leased premises without the LESSOR prior written consent, which shall not be unreasonably withheld.

10.9 If consent is given by the LESSOR in terms of 10.1 or 10.2 then during the currency of this lease or any extension thereof, such alterations or additions shall not be removed or altered by the LESSEE, and upon the expiration or earlier termination of the LEASE :

If the LESSEE is required to do so by the LESSOR in writing, within 30 (thirty) days of that expiration or termination, the LESSEE shall remove the said alterations or additions and reinstate the building and/or the leased premises in question, at the LESSEE cost, to their same condition (fair wear and tear excepted) prior to the carrying out of such alteration or additions, and if the LESSEE fails to do so after notice as aforesaid, the LESSOR shall be entitled to remove the said alterations or additions and reinstate the building and/or the leased premises as aforesaid at the LESSEE cost.

Notwithstanding the aforementioned, the LESSOR shall be entitled to insist in the LESSOR’s sole discretion that the LESSEE restore the premises to the condition of a bare shell at the LESSEE’s cost, upon termination of this lease agreement or the LESSEE’s vacation of the premises.

10.9.1 If the LESSOR does not exercise its right in terms of 10.3, the said additions or alterations shall not be removed by the LESSEE, but shall become the LESSOR property and no compensation therefore shall be paid by the LESSOR.

10.10 In the event of any dispute arising as to whether any alteration or addition is structural, non-structural or merely a fixture or fitting, a certificate of any architect appointed by the LESSOR shall be final and binding on both the LESSOR and the LESSEE.

10.11 If the LESSEE effects any alterations and additions to the building or the leased premises without the LESSOR prior written consent, the LESSOR shall be entitled to deem that such consent has not been given and to exercise its rights in terms of 10.3.

10.12 If the LESSEE is obliged by the LESSOR to remove any alterations and additions and reinstate the leased premises and, for the purpose of so doing, the LESSEE remains in occupation of the Leased premises after expiry of this lease, then the LESSEE shall be liable for the payment of rental in terms of this lease in respect of such period of occupation and such further damages as may accrue to the LESSOR arising therefrom.

11 FIXTURES AND FITTINGS

The LESSEE shall be entitled, from time to time, to erect in the leased premises, such fixtures and fittings as may be required or necessary for the carrying on of the LESSEE business, but which shall be:

11.7 In keeping with the general finish of the building.

11.8 Removed by the LESSEE at its cost upon the expiration or earlier termination of this lease, provided that any damage caused to the leased premises as a result of any such removal shall be made good by the LESSEE at its cost.

11.9 In the event that the LESSEE has taken occupation of the premises and same were already fitted with fixtures and fittings, the LESSOR may in its discretion insist that the LESSEE restore the premises to the condition of a bare shell upon the LESSEE vacating the premises and in the event that the LESSEE fails to do so once requested by the LESSOR, the LESSOR shall be entitled to recover the costs of re-instating the premises to a bare shell from the LESSEE which costs shall be payable by the LESSEE to the LESSOR within seven (7) days of due and proper demand having been forwarded by the LESSOR to the LESSEE.

12 SIGNWRITING

The LESSEE shall not be entitled to affix any hanging signs, sign writing, advertising or the like to any part of the leased premises without the prior written approval of the LESSOR, which approval shall not be unreasonably withheld.

13 MAINTENANCE OF INTERIOR

13.7 The LESSEE hereby acknowledges that the leased premises including all sewerage and drainage systems are rented by the LESSEE in an 'as is' state, was inspected by the LESSEE and it shall be the responsibility of the LESSEE at his own cost and expense, to maintain the interior of the said premises in good order and condition, to replace all windows or plate glass which may be damaged or broken during his tenancy and also to repair and/or replace all locks, keys, door handles, window fittings and other interior fittings that may be damaged, destroyed or lost during his tenancy of the leased premises. The LESSEE shall pay for the replacement of all fluorescent lights, starters, ballasts, and incandescent lamps used in or on the premises. The LESSEE also agrees to replace at his own cost all electric light globes and fittings used, broken or worn out during the currency of this lease and shall be responsible for restoring the Leased premises to the LESSOR on the termination of this lease in the same good order and condition, fair wear and tear only excepted. The LESSEE also agrees to keep the area adjacent to his portion of the premises clean and tidy and free from refuse and shall not permit persons to loiter in such area.

13.8 The LESSEE, if obliged to paint the interior of the premises in terms of this lease agreement, or in the event of the LESSEE wishing to paint the leased premises, such painting shall be effected in a proper workmanlike manner and with good quality paint, providing further that the LESSEE shall not be entitled to paint the interior of the leased premises so as to substantially alter the colour of any existing paintwork therein unless the consent to do so is first obtained from the LESSOR in writing.

14 MAINTENANCE OF EXTERIOR

The LESSOR shall keep the exterior of the premises in good order and repair and the LESSEE undertakes and it shall be his duty to notify the LESSOR in writing of any defects in the exterior of the building which become apparent to him during the period of this lease, in which event the LESSOR shall remedy the defect within a reasonable time. In any event the LESSOR shall not be responsible for any damage to the property of the LESSEE by reason of any defect in the premises or from any cause unless caused directly by the LESSOR, including any damage due to leakage.

15 VALUE ADDED TAX

In the event of value added tax or any other form of tax imposed by the Government or any Regional, Local or other competent Authority, being or becoming payable by the LESSOR on the rent or any other amount due by the LESSEE in terms of this lease, the LESSEE shall refund to the LESSOR on demand such tax or other amounts so payable by the LESSOR.

16 NUISANCE

The LESSEE and/or his Agents or servants shall not do nor permit to be done anything in or upon the Leased premises or any part thereof which may cause or be a nuisance or annoyance, to the Lessees occupying other portions of the LESSOR property or neighbours generally.

17 DESTRUCTION BY FIRE

In the event of the leased premises being totally or partially destroyed by fire, riot, vis major or any act of god or by any other cause whatsoever, this lease shall for such reason not terminate, but the LESSEE shall be entitled to an agreed rebate of rent during the repair of the building or the rebuilding, as the case may be, proportionate to the LESSEE'S beneficial occupation of the premises, unless such fire has occurred through his or his servant's negligence when no rebate of rent will be allowed or claimable, the onus of proof of negligence to lie with the LESSOR.

In the event of a dispute arising between the LESSOR and the LESSEE as to the rebate of rent, or the availability for beneficial occupation, same shall be determined by submission to The South African Institute of Valuers, for arbitration by two independent members appointed by the Chairman of the Branch, who decision the parties agree to accept. The LESSEE shall not have any claim on the LESSOR for damages in consequence of any deprivation, the LESSOR at all times having the right to elect whether he shall rebuild or not and he shall give written notice of his intention to the LESSEE within one (1) month after such occurrence, and should he fail to do so, then he shall be deemed to have elected not to erect the building, in which case this lease shall terminate upon the expiry of such period of one (1) month. In the event however of the LESSOR restoring the property or rebuilding the same, he shall give the LESSEE the same accommodation the LESSEE had under this LEASE. Should the LESSOR decide to rebuild or restore the property, he shall be obliged to commence and complete the work as quickly as reasonably possible.

18 INSPECTIONS

The LESSOR or his Agents shall be entitled during working hours and on 24 hour notice to the LESSEE to enter upon and inspect the Leased premises or any portion thereof, subject to an orderly arrangement of these inspections without putting the trade secrets or terms of operational permits of the LESSEE at risk. In the event of any damage having been caused to the Leased premises for which the LESSEE is responsible under LEASE, to call upon the LESSEE to repair such damage. In default of the LESSEE effecting such repairs within fourteen (14) days after receiving such notice, the LESSOR may himself effect the repairs and charge the LESSEE with the cost thereof.

19 "FOR SALE" and "TO LET" SIGNS

The LESSOR shall be entitled to display a "For Sale" sign upon the Leased premises at any time during the currency of this lease and he may likewise display a "To Let" sign at any time within a period of three (3) months prior to the expiry of this LEASE. The LESSEE shall permit any intended LESSEE or purchaser to view the Leased premises during working hours and with 24 hours notice to the LESSEE.

20 CESSIONS AND SUB-LETTING

The LESSEE shall not cede, assign or transfer this Agreement of Lease nor shall he sub-let, assign or part with possession of the Leased premises or any part thereof without the consent of the LESSOR in writing first being had and obtained, which consent, however, shall not be unreasonably withheld. It is recorded that a sale of shares in the LESSEE Company shall be deemed to be alienation in terms of this condition.

21 INDULGENCE

Any relaxation or indulgence which the LESSOR may show the LESSEE shall not in any way prejudice his rights under this lease and, more particularly, no act of the LESSOR in accepting rent after due date or in accepting a lesser sum than the amount of rent due shall be construed as a waiver by the LESSOR of his rights under this LEASE. In particular no waiver of any fashion whatsoever shall prejudice the Lessor's rights in terms of this lease agreement.

22 SOLE CONTRACT

This Agreement shall be the whole and only contract between the LESSOR and the LESSEE and the LESSEE acknowledges that no statement, warranties, presentations have been made to him by or on behalf of the LESSOR other than herein contained. Should any variations be required at any time during the currency of this lease, such variations shall only be binding on the parties if contained in writing and signed by the LESSOR and the LESSEE.

23 BREACH OF LEASE

Should the LESSEE:

23.7 fail to pay any amount due by it in terms of this lease on due date, or

23.8 commit any other breach of any condition of this lease, whether such breach goes to the root of this contract or not, and fail to remedy that breach within a period of 7 (seven) days after the giving of written notice to that effect to it by the LESSOR (provided that should that breach be one which is not reasonably capable of being remedied within the said period of 7 (seven) days, then the LESSEE shall be allowed such addition period as is reasonably require therefore, breach of any of the conditions of the lease and thereafter again breach any condition of the lease (whether the same condition or not) within a period of 12 (twelve) months after the earlier breach aforesaid, or

23.9 commit any act of insolvency, then and in any of such events, the LESSOR shall, without prejudice to its right to damages or to its right to eject the LESSEE from the Leased premises or to any other claim of any nature whatever that the LESSOR may have against the LESSEE as a result thereof –

(i) Be entitled to cancel this lease, or

(ii) In the case of sub-clause (b) hereof, to remedy such breach and immediately recover the total cost incurred by the LESSOR in so doing from the LESSEE.

24 While the LESSEE remains in occupation of the Leased premises and irrespective of any dispute between the parties, including, but not being restricted to a dispute as to the LESSOR right to cancel this lease, then –

(i) The LESSEE shall continue to pay all amounts due to the LESSOR in terms of this lease on the due dates of the same.

(ii) the LESSOR shall be entitled to recover and accept those payments.

(iii) The acceptance by the LESSOR of those payments shall be without prejudice to and shall not in any manner whatsoever affect the LESSOR claim to cancellation of this lease or for damages of any other nature whatsoever.

(iv) Should dispute between the LESSOR and the LESSEE be determined in favour of the LESSOR, then the payments made to the LESSOR in terms of this sub clause shall be regarded as amounts paid by the LESSEE on account of the loss and/or damages sustained by the LESSOR as a result of the holding over by the LESSEE of the Leased premises.

In the event of the LESSOR instructing its Attorney to take measures for the enforcement of any of the LESSOR rights under this lease, the LESSEE shall pay to the LESSOR such collection charges and other legal costs, on an attorney and own client basis, as shall be lawfully charged by such attorneys to the LESSOR.

25 JURISDICTION AND ALTERNATIVE DISPUTE RESOLUTION

The LESSEE consents in terms of Section 45 of Act 32 of 1944 (or any amendments or substitutions thereof) to the LESSOR taking steps for the eviction of the LESSEE.

In regard to any other dispute arising from or in connection with this contract shall be finally resolved with the Rules of the Arbitration Foundation of Southern Africa by an Arbitrator appointed by the Foundation.

The parties agree to submit to the rules for domestic arbitration South Africa of the ARBITRATION FOUNDATION SOUTH AFRICA https://arbitration.co.za/domestic-arbitration/commercial-rules/ in terms of legal proceeding for enforcing any of his rights under this Agreement of Lease for recovery of any monies claimable under this lease or otherwise.

26 SEWERAGE SYSTEM

In regard to the sewerage system, it is a condition of this lease that only standard toilet paper will be used in the toilets and the LESSEE will be held responsible for any blockage caused by its employees to the sewer pipes which attributable to the misuse of the system.

27 VACANT POSSESSION

At the termination of this lease the LESSEE agrees that he will give up vacant possession of the Leased premises to the LESSOR.

28 FLOOR LOADING

The maximum floor loading capacity of the Leased premises is 450 Kilograms per square metre and the LESSEE undertakes that machinery and/or goods to be

stored or stacked in the Leased premises will not exceed this floor loading capacity.

29 COSTS OF LEASE

The LESSEE shall pay the entire expenses incidental to and in connection with the preparation and execution of this lease and any renewal thereof, if applicable.

30 VENTILATION / AIR CONDITIONING

All ventilation equipment currently installed is included in the rental. All costs related to running, maintenance and upgrading is for the account of the LESSOR.

All improvements to the air conditioning system will remain the property of the LESSOR at the expiry of the lease agreement.

31 LICENCES

(a) The LESSOR does not warrant or represent, the Leased premises are fit for the purpose of the business to be conducted in terms of this LEASE.

(b) There shall be no obligation or responsibility on the LESSOR to perform any work or to make any alterations to the premises so that the premises comply with such provisions as may be required by any authority for the issue of a licence, permit or any other authority to the LESSEE.

(c) The LESSEE shall be liable for obtaining all necessary permits, licences, authorities, or other consents in respect of the conduct of the LESSEE business in the Leased premises. Any failure howsoever arising to obtain, keep, or renew such permits, licences, authorities or consents during the currency of this lease shall not constitute a ground for cancellation of this LEASE.

32 INTEREST ON LATE PAYMENT

Should any amount due by the LESSEE in terms of this LEASE, whether in respect of rental or otherwise, not be paid on due date, such amount will bear interest at the rate of interest charged from time to time by ABSA Bank in respect of overdraft facilities plus 5 %. Interest will accrue on the unpaid amount from the date on which payment was due until payment is made and the interest will be due and payable upon its accrual, which interest will be calculated daily.

All costs incurred in the collection of any amount due by the LESSEE in terms of this LEASE, not paid on due date, shall be for the account of the LESSEE.

33 LATITUDE

In the event of the LESSOR not immediately enforcing the due or full compliance with all or any of the terms and conditions of this LEASE, or neglecting to do so, or in the event of an extension of time being granted by the LESSOR to the LESSEE for the observance of any provision hereof, such failure, neglect or indulgence by the LESSOR will in no way be construed as a novation of this agreement nor will it in any other way be binding upon the LESSOR.

34 SALE AND/OR TRANSFER OF BUILDING

The LESSEE hereby waives its right of election to terminate this LEASE, or any extension hereof, in the event of the LESSOR selling or transferring the building in which the premises hereby let are situated, to any third party. The LESSEE further agrees that it shall continue to be bound by the terms and conditions of this lease upon the sale and/or transfer referred to herein taking place.

The lessee is entitled to register this lease agreement at the Deeds Office at his own cost.

35 SECURITY

The premises is being developed as a Techno park and numerous of the tenants develop new technologies, therefore it is required from all tenants to respect and comply with rules from management regarding security and/or access control.

If any person working for or have access to the lessee's premises by virtue of association with the LESSEE fail to comply with rules in this regard or breach the security of other tenants, the management reserves the right to deny such a person access to the premises.

The LESSOR provides, which it shall have no obligation to do and provides no guarantee in this regard, a security service.

Currently it compromises of a single guard on duty, 24 hours, 7 days a week with radio contact with armed mobile reaction units.

35.7 Should the LESSEE have any specific security requirements, only security firms vetted and found suitable will be allowed on site, access will remain restricted.

35.8 The security company contracted by the LESSOR will be given the opportunity to provide the same service at the same quoted cost. Unless the company referred to in 37.1 cannot provide such a service at the same cost, the tenant will use the LESSOR's preferred security company.

35.9 In the event of the LESSOR installing a security system, and/or security guards for controlled access and/or protection of the building in which the Leased premises are situated, before, during or after normal business hours or during weekends and public holidays, the LESSEE will be obliged to co-operate therewith in a way that the LESSOR regards as reasonable and suitable for the building.

35.10 The LESSEE undertakes to co-operate in all firefighting, fire preventing and evacuation exercises that may be necessary from time to time.

36 ACCESS CONTROL

36.7 The main building does have an access control system which control access to restricted areas and improves the general security of the building

36.8 All employees of the LESSEE must comply with the rules of the LESSOR

36.9 Photos must be provided for all access card carrying persons associated with the lessor.

36.10 Employees will have limited access to the building after normal working hours.

36.11 The LESSEE will have full access control of the leased premises, except access required in terms of safety regulations eg. fire escape

36.12 Should any operational specific, access needs exist, it can be arranged with building management, provided it does not effect the security the total premises negatively.

37 PEST CONTROL

The LESSEE shall pay, on demand, to the LESSOR the costs in regard to the control and extermination of any pests and other infestations on the Leased premises, which may cause a health hazard. If more than one LESSEE occupy the building, the costs thereof shall be borne on a pro rata basis by the LESSEE and shall it be determined according to the following formula :

LESSEE SHARE = m² LEASED PREMISES X 100 = %

SHARE

TOTAL m² OF BUILDING COSTS

The LESSOR shall be entitled to inspect the Leased premises at all reasonable times for this purpose and the LESSEE shall grant the LESSOR access to the Leased premises to exercise such pest control and/or extermination thereof.

38 BUILDING CLAUSE

38.1 After the initial twenty four (24) months of the lease, the Landlord may terminate this lease or any renewal thereof by giving the Tenant twelve (12) months written notice to such effect should the Landlord wish to demolish the premises ore reconstruct of redevelop the premises.

38.2 The Landlord shall, however, have the right at any time to commence the reconstruction and/or redevelopment and/or renovation of the building, other than the premises and these operations may proceed while the Tenant is in occupation of the premises.

38.3 The Landlord is entitled to access all service shafts forming part of the premises for purposes of reconstruction and/or redevelopment and/or renovation of the building.

38.4 Notwithstanding the implementation of any work as contemplated in point 2 above, the Tenant shall have no right to object to such work or to claim any rebate of rental during the period in which said work may be in progress nor shall the Tenant have any claim for damages of whatsoever nature by reason of the earlier termination of this lease.

38 CONSENT CLAUSE

The Tenant hereby consents that, and authorises the Landlord or agent to, at all times:

(a) Contact, request and obtain information from any credit provider (or potential credit provider) or registered credit bureau relevant to an assessment of the behaviour, profile, payment patterns, indebtedness, whereabouts, and creditworthiness of the Tenant ;

(b) Furnish information concerning the behaviour, profile, payment patterns, indebtedness, whereabouts, and creditworthiness of the tenant to any registered credit bureau or to any credit provider (or potential credit provider) seeking a trade reference regarding the tenant's dealings with the Landlord.

Exhibit 10.16

SUBSCRIPTION AGREEMENT ASP ISOTOPES INC.

THE SHARES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE OR ANY OTHER JURISDICTION. THERE ARE FURTHER RESTRICTIONS ON THE TRANSFERABILITY OF THE SHARES DESCRIBED HEREIN.

THE PURCHASE OF THE SHARES INVOLVES A HIGH DEGREE OF RISK AND SHOULD BE CONSIDERED ONLY BY PERSONS WHO CAN BEAR THE RISK OF THE LOSS OF THEIR ENTIRE INVESTMENT.

ASP Isotopes Inc., a Delaware corporation (hereinafter the "**Company**"), and the undersigned (hereinafter the "**Subscriber**") agree as follows:

WHEREAS:

A. The Company desires to issue up to 3,000,000 shares of common stock of the Company, par value $0.01 per share (the "**Common Stock**"), at a price of $2.00 per share, in a "private placement" to persons who qualify as "accredited investors" (as that term is defined in Rule 501(a) of Regulation D promulgated under the Securities Act of 1933, as amended (the "**Securities Act**"), which is exempt from registration under the Securities Act; and

B. Subscriber desires to acquire that number of shares as is set forth on the signature page hereof (hereinafter the "**Shares**") at the purchase price set forth herein.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants hereinafter set- forth, the parties hereto do hereby agree as follows:

SUBSCRIPTION

1.1 Subject to the terms and conditions hereinafter set forth, the Subscriber hereby irrevocably subscribes for and agrees to purchase the Shares from the Company at a price equal to $2.00 per share, and the Company agrees to sell the Shares to Subscriber in consideration of said purchase price.

1.2 The purchase price for the Shares subscribed to hereunder is payable by the Subscriber contemporaneously with the execution and e-mail delivery of this Subscription Agreement to the Company at paul_mann@btinternet.com. Payment shall be made by to the Company by certified check or bank draft.

If you wish to wire your subscription funds, please contact the Company for further instructions. If you wish to send a certified check please contact the company for further instructions.

REPRESENTATIONS AND WARRANTIES BY SUBSCRIBER

2.1 Subscriber hereby acknowledges, represents and warrants to the Company the following:

(A) Subscriber acknowledges that the purchase of the Shares involves a high degree of risk and that the Company will require substantial additional funds to finance its operations, which may not be available on acceptable terms, or at all;

(B) Subscriber has been furnished and has carefully reviewed the Company's Confidential Offering Memorandum dated November 8, 2021 (the "**Offering Memorandum**"). Subscriber has not been furnished any offering literature other than the Offering Memorandum, and the undersigned has relied only on the information contained therein;

(C) The undersigned understands and accepts that the purchase of the Securities involves various risks, including the risks outlined in the Offering Documents (including the "Forward Looking Statements" and "Risk Factors" sections of the Offering Memorandum). Subscriber acknowledges that there are many other risks that are not detailed in the Offering Memorandum that could adversely affect the Company and therefore the value of the investor's investment. Subscriber recognizes that an investment in the Company is highly speculative and only investors who can afford the loss of their entire investment should consider investing in the Company and the Shares. Subscriber represents that Subscriber is able to bear any loss associated with an investment in the Shares;

(D) Subscriber has such knowledge, skill and experience in business, finance, securities, investments, including investment in unregistered securities, so as to be capable of evaluating the merits and risks of an investment in the Shares. With the assistance of the Subscriber's own professional advisors, to the extent that the Subscriber has deemed appropriate, the Subscriber has made its own legal, tax, accounting and financial evaluation of the merits and risks of an investment in the Shares and the consequences of this Subscription Agreement. The Subscriber has considered the suitability of the Shares as an investment in light of its own circumstances and financial condition and the undersigned is able to bear the risks associated with an investment in the Shares and its authority to invest in the Shares;

(E) Unless allowed to participated in this offering as a non-accredited investor by permission of the Board of Directors of the Company, the Subscriber is an "Accredited Investor" as defined in Rule 501 of Regulation D promulgated under the Securities Act;

(F) Subscriber acknowledges that no public market for the Shares presently exists and, accordingly, Subscriber may not be able to liquidate its investment;

(G) Subscriber acknowledges that the shares are subject to significant restrictions on transfer as imposed by state and federal securities laws, including but not limited to a minimum holding period of at least one (1) year;

(H) Subscriber hereby acknowledges (i) that this offering of Shares has not been reviewed by the United States Securities and Exchange Commission ("SEC") or by the securities regulator of any state; (ii) that the Shares are being issued by the Company pursuant to an exemption from registration provided by Section 4(a)(2) of the Securities Act; and (iii) that any certificate evidencing the Shares received by Subscriber will bear a legend in substantially the following form:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED WITH THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER ANY APPLICABLE STATE SECURITIES LAWS. WITHOUT SUCH REGISTRATION, SUCH SECURITIES MAY NOT BE SOLD OR OTHERWISE TRANSFERRED AT ANY TIME WHATSOEVER UNLESS IN THE OPINION OF COUNSEL SATISFACTORY TO THE COMPANY REGISTRATION IS NOT REQUIRED FOR SUCH TRANSFER AND THAT SUCH TRANSFER WILL NOT BE IN VIOLATION OF THE APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR ANY RULE OR REGULATION PROMULGATED THEREUNDER.

(I) Subscriber is acquiring the Shares solely for the Subscriber's own beneficial account, for investment purposes, and not wiTth a view to, or for resale in connection with, any distribution of the Shares.

(J) Subscriber is not aware of any advertisement of the Shares or any general solicitation in connection with any offering of the Shares;

(K) Subscriber acknowledges receipt and review of both the Certificate of Incorporation and bylaws of the Company, together with the opportunity and the Company's encouragement to seek the advice and consultation of independent investment, legal and tax counsel;

(L) Subscriber acknowledges and agrees that the Company has previously made available to Subscriber the opportunity to ask questions of and to receive answers from representatives of the Company concerning the Company and the Shares, as well as to conduct whatever due diligence the Subscriber, in its discretion, deems advisable. Subscriber confirms that Subscriber is not relying on any information communicated (written or oral) by any representatives of the Company or any of its affiliates, as investment or tax advice or as a recommendation to purchase the Shares. It is understood that information and explanations related to the terms and conditions of the Shares shall not be considered investment or tax advice or a recommendation to purchase the Shares, and that neither the Company nor any of its affiliates is acting or has acted as an advisor to the undersigned in deciding to invest in the Shares. Subscriber is relying solely upon information obtained during Subscriber's due diligence investigation in making a decision to invest in the Shares and the Company.

REPRESENTATIONS BY THE COMPANY

3.1 The Company represents and warrants to the Subscriber that:

(A) The Company is a corporation duly organized, existing and in good standing under the laws of the Delaware and has the corporate power to conduct the business which it conducts and proposes to conduct.

(B) Upon issue, the Shares will be duly and validly issued, fully paid and non-assessable common stock in the capital of the Company.

3.2 The Company agrees that after an initial underwritten offering of the Common Stock pursuant to an effective registration statement of the Company filed under the Securities Act:

(A) Whenever the Company proposes to register the offer and sale of any shares of its Common Stock under the Securities Act (other than a registration (i) pursuant to a Registration Statement on Form S-8 (or other registration solely relating to an offering or sale to employees or directors of the Company pursuant to any employee stock plan or other employee benefit arrangement), (ii) pursuant to a Registration Statement on Form S-4 (or similar form that relates to a transaction subject to Rule 145 under the Securities Act or any successor rule thereto), or (iii) in connection with any dividend or distribution reinvestment or similar plan), whether for its own account or for the account of one or more stockholders of the Company and the form of Registration Statement (a "**Piggyback Registration Statement**") to be used may be used for any registration of Common Stock (a '**Piggyback Registration**"), the Company shall give written notice to the holders of Shares purchased pursuant to this Agreement ("**Registrable Securities**") of its intention to effect such a registration and, subject to Section 3.2(B), shall include in such registration all Registrable Securities with respect to which the Company has received written requests

for inclusion from the holders of Registrable Securities within 10 days after the Company's notice has been given to each such holder. The Company may postpone or withdraw the filing or the effectiveness of a Piggyback Registration at any time in its sole discretion. If any Piggyback Registration Statement pursuant to which holders of Registrable Securities have registered the offer and sale of Registrable Securities is a Registration Statement on Form S-3 or the then appropriate form for an offering to be made on a delayed or continuous basis pursuant to Rule 415 under the Securities Act or any successor rule thereto (a "**Piggyback Shelf Registration Statement**"), such holder(s) shall have the right, but not the obligation, to be notified of and to participate in any offering under such Piggyback Shelf Registration Statement (a "**Piggyback Shelf Takedown**").

(B) If a Piggyback Registration or Piggyback Shelf Takedown is initiated as a primary underwritten offering on behalf of the Company and the managing underwriter advises the Company and the holders of Registrable Securities (if any holders of Registrable Securities have elected to include Registrable Securities in such Piggyback Registration or Piggyback Shelf Takedown) in writing that in its reasonable and good faith opinion the number of shares of Common Stock proposed to be included in such registration or takedown, including all Registrable Securities and all other shares of Common Stock proposed to be included in such underwritten offering, exceeds the number of shares of Common Stock which can be sold in such offering and/or that the number of shares of Common Stock proposed to be included in any such registration or takedown would adversely affect the price per share of the Common Stock to be sold in such offering, the Company shall include in such registration or takedown (i) first, the shares of Common Stock that the Company proposes to sell; (ii) second, the shares of Common Stock requested to be included therein by holders of Registrable Securities, allocated pro rata among all such holders on the basis of the number of Registrable Securities owned by each such holder or in such manner as they may otherwise agree; and (iii) third, the shares of Common Stock requested to be included therein by holders of Common Stock other than holders of Registrable Securities, allocated among such holders in such manner as they may agree.

TERMS OF SUBSCRIPTION

4.1 Upon acceptance of this subscription by the Company, all funds paid hereunder shall be immediately available to the Company for its use.

4.2 Subscriber hereby authorizes and directs the Company to deliver the securities to be issued to such Subscriber pursuant to this Subscription Agreement to Subscriber's address indicated herein.

4.3 Notwithstanding the place where this Subscription Agreement may be executed by any of the parties hereto, the parties expressly agree that all the terms and provisions hereof shall be construed in accordance with and governed by the laws of Delaware. Exclusive venue for any dispute arising out of this Subscription Agreement or the Shares shall be the local or federal courts sited in Delaware.

4.4 The parties agree to execute and deliver all such further documents, agreements and instruments and take such other and further action as may be necessary or appropriate to carry out the purposes and intent of this Subscription Agreement.

[remainder of this page intentionally blank]

ACCREDITED INVESTOR STATUS

5.1 ☐ *By checking this box, Subscriber represents and warrants to the Company that the Subscriber is an "Accredited Investor" as such term is defined in Rule 501 of Regulation D promulgated under the United States Securities Act of 1933, as amended (the "Act"). The Subscriber acknowledges having* reviewed and considered the definition of "Accredited Investor" attached to this Subscription Agreement.

IN WITNESS WHEREOF, this Subscription Agreement is executed as of the____ day of_________, 2021.

Number of Shares Subscribed For: ______________________________

Total Purchase Price: ______________________________

Individual:

____
Signature

____
US Citizen: Social Security #
Non-US Citizen: Tax I.D. or ITIN, etc.

____
Print or Type Full Name

____

____
Address

Company, Corporation or Other Entity:

____
Print or Type Full Name of Entity

____
Taxpayer I.D. No.

____
By: Signature

____

____
Address

____
Print or Type Full Name of Signatory

____
Print or Type Title or Position of Signatory

ACCEPTED BY: ASP ISOTOPES INC.

The undersigned hereby accepts the above subscription for the Shares on behalf of the Company.

Signature of Authorized Signatory: ______________________________

Name of Authorized Signatory: Paul Mann

Date of Acceptance: ______________________________

Accredited Investor Definition

The Subscriber will be an "Accredited Investor" as such term is defined in Rule 501 of Regulation D promulgated under the United States Securities Act of 1933, as amended (the "Act") if the Subscriber is any of the following:

(1) Any bank as defined in section 3(a)(2) of the Act, or any savings and loan association or other institution as defined in section 3(a)(5)(A) of the Act whether acting in its individual or fiduciary capacity; any broker or dealer registered pursuant to section 15 of the Securities Exchange Act of 1934; any investment adviser registered pursuant to section 203 of the Investment Advisers Act of 1940 or registered pursuant to the laws of a state; any investment adviser relying on the exemption from registering with the SEC under section 203(l) or (m) of the Investment Advisers Act of 1940; any insurance company as defined in section 2(a)(13) of the Act; any investment company registered under the Investment Company Act of 1940 or a business development company as defined in section 2(a)(48) of that act; any Small Business Investment Company licensed by the U.S. Small Business Administration under section 301(c) or (d) of the Small Business Investment Act of 1958; any Rural Business Investment Company as defined in section 384A of the Consolidated Farm and Rural Development Act; any plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees, if such plan has total assets in excess of $5,000,000; any employee benefit plan within the meaning of the Employee Retirement Income Security Act of 1974 if the investment decision is made by a plan fiduciary, as defined in section 3(21) of such act, which is either a bank, savings and loan association, insurance company, or registered investment adviser, or if the employee benefit plan has total assets in excess of $5,000,000 or, if a self-directed plan, with investment decisions made solely by persons that are accredited investors;

(2) Any private business development company as defined in section 202(a)(22) of the Investment Advisers Act of 1940;

(3) Any organization described in section 501(c)(3) of the Internal Revenue Code, corporation, Massachusetts or similar business trust, partnership, or limited liability company, not formed for the specific purpose of acquiring the securities offered, with total assets in excess of $5,000,000;

(4) Any director, executive officer, or general partner of the issuer of the securities being offered or sold, or any director, executive officer, or general partner of a general partner of that issuer;

(5) Any natural person whose individual net worth, or joint net worth[1] with that person's spouse or spousal equivalent, exceeds $1,000,000.

For these purposes "net worth" means the excess of:

- such person's total assets at fair market value (including all personal and real property, but excluding the estimated fair market value of such person's primary residence)

  minus

- such person's total liabilities.

[1] Note to paragraph (5): For the purposes of calculating joint net worth in this paragraph (5): joint net worth can be the aggregate net worth of the investor and spouse or spousal equivalent; assets need not be held jointly to be included in the calculation. Reliance on the joint net worth standard of this paragraph (5) does not require that the securities be purchased jointly.

For these purposes, "liabilities": (1) exclude any mortgage or other debt secured by such person's primary residence in an amount of up to the estimated fair market value of that residence; but (2) include any mortgage or other debt secured by such person's primary residence in an amount in excess of the estimated fair market value of that residence.

(6) Any natural person who had an individual income exceeded $200,000 in each of the two most recent years or joint income with that person's spouse or spousal equivalent exceeded $300,000 in each of those years, and has a reasonable expectation of reaching the same income level in the current year;

(7) Any trust, with total assets in excess of $5,000,000, not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a sophisticated person as described in Rule 506(b)(2)(ii) under the Act;

(8) Any entity in which all of the equity owners are accredited investors;

(9) Any entity, of a type not listed in paragraphs (1), (2), (3), (7), or (8) above, not formed for the specific purpose of acquiring the securities offered, owning investments in excess of $5,000,000;

(10) Any individual holding in good standing one or more professional certifications or designations or credentials from an accredited educational institution that the SEC has designated as qualifying an individual for accredited investor status (e.g., Licensed General Securities Representative (Series 7); Licensed Investment Adviser Representative (Series 65); or Licensed Private Securities Offerings Representative (Series 82));

(11) Any individual who is a "knowledgeable employee," as defined in Rule 3c-5(a)(4) under the Investment Company Act, of the issuer of the securities being offered where the issuer is a private fund (excluded from the definition of investment company in Section 3(c)(1) or 3(c)(7));

(12) Any "family office," as defined in Rule 202(a)(11)(G)-1 under the Investment Advisers Act of 1940:

- with assets under management in excess of $5 million;
- that is not formed for the specific purpose of acquiring the securities being offered; and
- whose prospective investment is directed by a person who has such knowledge and experience in financial and business matters that the family office is capable of evaluating the merits and risks of the prospective investment.

(13) Any "family client," as defined in Rule 202(a)(11)(G)-1 under the Investment Advisers Act of 1940, of a family office meeting the requirements above and whose prospective investment in the issuer of the securities being offered is directed by the family office pursuant to the third sub-bullet above.

Exhibit 10.17

LICENSE AGREEMENT

between

Klydon (PROPRIETARY) LIMITED
(Registration Number 1997/019687/07)

and

ASP Isotopes UK LTD
(Registration Number 14252657)

INDEX

NO	CLAUSE HEADING	PAGE
1	DEFINITIONS AND INTERPRETATION	1
1.1	Definitions	1
1.2	Interpretation	4
2	GRANT OF LICENCE	4
3	EXCLUSIVITY AND LICENCE RESTRICTIONS	4
4	DURATION	5
5	INTELLECTUAL PROPERTY RIGHTS AND IMPROVEMENTS	6
5.1	Intellectual Property Rights	6
5.2	Improvement	8
6	TECHNICAL INFORMATION AND QUALITY CONTROL	8
6.1	Technical Information and Assistance	8
6.2	Quality control	9
7	PAYMENTS	9
7.1	Upfront Payment	9
8	WARRANTIES, EXCLUSION OF LIABILITY AND INDEMNITY	10
8.1	Warranties	10
8.3	Indemnity	11
9	FORCE MAJEURE	12
10	TERMINATION OF EXCLUSIVITY	12
11	CONFIDENTIALITY AND PROTECTION OF INFORMATION	13
12	BREACH	14
13	DISPUTE RESOLUTION	15
14	NOTICES AND *DOMICILIA*	17
15	MISCELLANEOUS AND WARRANTY OF AUTHORITY	18
15.1	Change of control or status	18
15.2	Non- Assignment	18
15.3	Warranty of Authority	19
15.4	Independent Advice	19
15.5	Implementation	19
15.6	Payment	19
15.7	Whole Agreement	19
15.8	Variation	19
15.9	Relaxation	19
15.10	Counterparts	19

LICENCE AGREEMENT

This Agreement is made and entered into between -

(1) **Klydon Proprietary Limited** of Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184 (Registration Number 1997/109687/07) ("**Licensor**"); and

(2) **ASP Isotopes UK LTD** of 128 City Road, London, United Kingdom, EC1V 2NX. Registration Number 14252657 ("**Licensee**").

RECITALS

A. The Licensor owns the Intellectual Property and Technology which it continues to develop, and has the right to grant a licence to use and exploit the Intellectual Property and Technology.

B. The Licensor has agreed to grant to the Licensee the exclusive and irrevocable right to use the Intellectual Property Rights and Technology in the Territory.

C. The Licensee wishes to acquire from the Licensor the exclusive and irrevocable right to use the Intellectual Property Rights and Technology to produce, distribute, market and sell Subject Isotopes.

Accordingly, the Parties agree as follows:

1 **DEFINITIONS AND INTERPRETATION**

1.1 **Definitions**

In this Agreement and the recitals, unless clearly inconsistent with or otherwise indicated by the context -

1.1.1 "**Agreement**" means the agreement set out in this document and the appendices hereto;

1.1.2 **Business Day** means any Saturday, Sunday or official public holiday in any jurisdiction in which either Party has its registered office;

1.1.3 "**Confidential Information**" means all and any information or data in whatever form (including in oral, written, electronic and visual form) relating to a Party or the Technology which by its nature or content is identifiable as, or could reasonably be expected to be, confidential and/or proprietary to either Party and includes, (even if not marked as being confidential, restricted, secret, proprietary or any similar designation), any and all information in respect of the Technology;

1.1.4 "**Copyright**" means copyright in the Territory in respect of the Technology;

1.1.5 "**Designs**" means any registered designs and design applications in respect of the Technology;

1.1.6 "**Effective Date**" means immediately after the termination of the API License which is the license agreement between the Licensor and API Labs Pharmaceuticals Proprietary Limited entered into on 25 October 2013 and any sub licenses to that license;

1.1.7 "**Improvement**" means any change, development, improvement or modification to any aspect of the Technology or any method of development of the Technology, use or application of the Technology including any change, improvement or modification which makes the Technology more efficient or adaptable or enables the Technology to be manufactured more economically or efficiently or to a higher standard;

1.1.8 "**Independent Auditors**" means such independent auditors as may be agreed between the Licensor and the Licensee, or failing agreement within 10 (ten) business days from the date of a request by any Party for such agreement, appointed by the Executive President for the time being of the South African Institute of Chartered Accountants from one of the 4 (four) largest (based on number of partners) independent firms of auditors in South Africa at the time;

1.1.9 "**Intellectual Property Rights**" means all existing and future proprietary rights of the Licensor relating to the Technology, whether or not such rights have been registered, including the –

1.1.9.1 Copyright;

1.1.9.2 Designs;

1.1.9.3 Know-how;

1.1.9.4 Patents;

1.1.9.5 Trade Marks; and

1.1.9.6 Improvements.

1.1.10 "**Know-how**" means all information and knowledge of whatever nature relating to the approval, manufacture, distribution, marketing, use and/or sale of the Technology owned or controlled by the Licensor, including technical information, production data, drawings, specifications, engineering and scientific information, manufacturing and tooling information, testing and quality control procedures, secret processes, formulae, marketing and application information, relationship information and other Confidential Information;

1.1.11 "**Licensee**" means ASP Isotopes South Africa (Pty) Ltd (Registration Number 2021/701779/07), a company duly registered and incorporated with limited liability in accordance with the laws of the Republic of South Africa, herein represented by Mr. Paul Mann;

1.1.12 "**Licensor**" means Klydon (Proprietary) Limited (Registration Number 1997/109687/07), a company duly registered and incorporated with limited liability in accordance with the laws of the Republic of South Africa, herein represented by Dr Einar Ronander (ID Number 500609073088), he being duly authorised thereto;

1.1.13 "**Parties**" means the Licensor and Licensee and "**Party**" shall mean either one of them as the context requires;

1.1.14 "**Patents**" means any registered patents and patent applications in respect of the Technology;

1.1.15 "**Prime Rate**" means the publicly quoted basic rate of interest, compounded monthly in arrears and calculated on a 365 (three hundred and sixty five) day year irrespective of whether or not the year is a leap year, from time to time published by the Licensor's bankers from time to time as being its prime overdraft rate, as certified by any representative of that bank whose appointment and designation it will not be necessary to prove;

1.1.16 "**Quarterly Period**" means each period of three (3) consecutive months ending on March 31, June 30, September 30, and December 31, and each successive three (3) month period thereafter except for first and the final period which may be less than three (3) months.

1.1.17 "**Subject Isotopes**" means all isotopes produced using the Technology;

1.1.18 **"Technology"** means the Licensor's proprietary Aerodynamic Separation Process Technology that is able to separate isotopes;

1.1.19 **"Term"** means a period of 999 (nine hundred and ninety nine) years, unless this Agreement is terminated in accordance with its terms;

1.1.20 "**Territory**" means global for the development of the Technology; and globally for the distribution, marketing and sale of that Subject Isotope. All future production of the Subject Isotope will only be in countries whose governments are participating governments of the Nuclear Suppliers Group (NSG) of countries as updated from time to time;

1.1.21 " **Turnkey Contract** " means Contract No: KTC 1/2021 entered into between the Licensor and PDS Photonica Holdings South Africa Proprietary Limited — a contract for a turnkey molybdenum enrichment plant dated November 1, 2021; and;

1.1.22 "**Trade Marks**" means the registered trade marks, trade mark applications and/or common law trade marks in respect of the Technology.

1.2 **Interpretation**

1.2.1 In this Agreement and the recitals, unless clearly inconsistent with or otherwise indicated by the context -

1.2.1.1 any reference to the singular includes the plural and *vice versa*;

1.2.1.2 any reference to natural persons includes legal persons and *vice versa*; and

1.2.1.3 any reference to a gender includes the other genders.

1.2.2 Where appropriate, meanings ascribed to defined words and expressions in 1.1, shall impose substantive obligations on the Parties.

1.2.3 The clause headings in this Agreement have been inserted for convenience only and shall not be taken into account in its interpretation.

1.2.4 Words and expressions defined in any sub-clause shall, for the purposes of the clause of which that sub-clause forms part, bear the meanings assigned to such words and expressions in that sub-clause.

1.2.5 This Agreement shall be governed by and construed and interpreted in accordance with the law of the Republic of South Africa.

2 **GRANT OF LICENCE**

The Licensor hereby gives and grants to the Licensee, which hereby accepts, an exclusive and irrevocable licence to use, develop, modify, improve, sub contract and sub license the Intellectual Property Rights and Technology during the Term for the production, distribution, marketing and or sale of the Subject Isotopes in the Territory.

3 **EXCLUSIVITY AND LICENCE RESTRICTIONS**

3.1 Exclusivity

The licence granted by the Licensor under this Agreement is exclusive, such that, whilst this Agreement remains in force, the Licensor shall not be entitled, directly or indirectly, to use, grant or otherwise license any Intellectual Property Rights and Technology rights to any other party for use within the Territory.

Licence Restrictions

3.1.1 The Licensee will not, without the prior written consent of the Licensor, use the trade names of the Licensor or Trade Marks in combination with any other trade names or trade marks, nor use trade names, symbols or letters which are confusingly similar to the trade names or Trade Marks.

3.1.2 The Licensee will respect and obey all global and regional regulations governing the production of the Subject Isotopes and the development and transfer of any technology associated with the Technology..

3.2 Irrevocability

3.2.1 The license granted by the Licensor to the Licensee under this Agreement is irrevocable and cannot be cancelled, changed or modified without the written agreement of both Parties.

4 **DURATION**

4.1 This Agreement shall commence on the Effective Date and shall continue in full force for the Term.

4.2 The duration of this Agreement shall not be affected by –

4.2.1 the lapsing of one or more of the Intellectual Property Rights, whether by effluxion of time or otherwise;

4.2.2 any Patent, Design Copyright or Trade Mark comprising the Intellectual Property Rights failing to proceed to grant or final prosecution or being held to be invalid; or

4.2.3 any change in control or status of the Licensor or Licensee or disposition, sale, devolvement, or assignment of the Intellectual Property Rights and/or Technology.

5 INTELLECTUAL PROPERTY RIGHTS AND IMPROVEMENTS

5.1 Intellectual Property Rights

5.1.1 The Licensee acknowledges and agrees that the Intellectual Property Rights and Technology is and are and shall remain the sole and absolute property of the Licensor and further acknowledges that the reputational use thereof in terms of this Agreement shall enure for the benefit of the Licensor.

5.1.2 The Licensee shall not anywhere in the Territory, whether during or after the Term -

5.1.2.1 oppose or contest any intellectual property application by the Licensor or the ownership of the Licensor therein;

5.1.2.2 dispute, contest or question the validity of the Intellectual Property Rights and Technology and shall not assist or counsel any other person to do so;

5.1.2.3 directly or indirectly register the Trade Marks, or any confusingly similar trade marks, anywhere in the Territory; or

5.1.2.4 directly or indirectly use any trade marks confusingly similar to the Trade Marks anywhere in the Territory.

5.1.3 No right, title or interest in and to the Intellectual Property Rights and Technology is hereby assigned except the right to use the Intellectual Property Rights and Technology during the Term of this Agreement in the manner and subject to the terms and conditions set out in this Agreement. The Licensor shall have no right to sell, assign, transfer, alienate, hire, lease, pledge, hypothecate, otherwise dispose of or encumber or to reproduce the whole or any part of the Intellectual Property Rights and Technology without the specific prior written consent of the Licensee.

5.1.4 The Licensee shall not in any way represent that it has any rights of any nature in and to the Intellectual Property Rights and Technology, other than those which it enjoys in terms of this Agreement. The Licensee shall only use the Intellectual Property Rights in respect of the Technology, as permitted by this Agreement.

5.1.5 The Licensor shall have the right from time to time to lay down in writing or otherwise reasonable standard and/or specific procedures for the use of the Intellectual Property Rights and Technology and from time to time to add to, amend, vary, supplement, change, alter or repeal such standard and/or specific procedures with the prior written consent of the Licensee.

5.1.6 The Licensee shall not do or cause to be done any act or thing contesting or in any way impairing or tending to impair any part of the Licensor's exclusive right, title and interest in and to the Intellectual Property Rights and Technology.

5.1.7 The Licensee undertakes to use its reasonable endeavours to ensure that the reputation and goodwill of the Intellectual Property Rights and Technology are protected, maintained and wherever possible enhanced.

5.1.8 The prosecution and/or defence of any claim in relation to the Intellectual Property Rights and Technology shall be the sole responsibility and shall be undertaken within the sole and absolute discretion of the Licensor, provided that the Licensee shall forthwith notify the Licensor of any claims or possible infringements of the Intellectual Property Rights and Technology of which the Licensee becomes aware and the Licensee shall, if required by the Licensor and at the Licensor's cost, join with the Licensor as a party to such proceedings, and/or assist the Licensor in any such proceedings in the manner and to the extent reasonably required by the Licensor. The Licensee shall not be entitled to make any admissions of liability in regard to any such claim or to negotiate any settlement in respect thereof without the specific prior written consent of the Licensor. Notwithstanding the aforesaid, the Licensee shall be entitled to defend any claim as contemplated in this clause 5.1.8 if the Licensor fails to take any steps in relation to such claim or assert the Intellectual Property Rights and/or Technology if the Licensor fails to do so provided that any action taken by the Licensee is at its cost.

5.1.9 The Licensor shall, at the Licensor's expense maintain the Intellectual Property Rights and Technology and the Licensor shall pay all renewal fees and do such other acts as may be necessary for this purpose. Notwithstanding the aforesaid, the Licensee shall have the right to do such other acts and make any such payment and recover the payment from the Licensor if the Licensor fails to make any such payments or do such other acts. Should the Licensee wish for any aspect or right forming part of the Intellectual Property Rights and/or Technology to be protected via a patent, trade mark, copyright, design and/or like intellectual property protection, the Licensor shall do so and maintain same at the Licensee's cost.

5.1.10 Both Parties acknowledge that the objective of this Agreement is to develop and enhance the protection of the Intellectual Property Rights and the Technology. Both Parties hereby agree to use their best endeavours and take all such steps and do all such acts as are necessary toward achieving this purpose, including where appropriate, filing formal applications for the registration of the Intellectual Property Rights, monitoring and policing trade secrecy, non-disclosure or similar agreements, maintaining intellectual property registers, maintaining, facilitating and enhancing regulatory approvals and international assistance, and disclosing information to each other necessary for this purpose.

5.2 Improvement

If at any time during the Term –

5.2.1 the Licensor makes, or receives the benefit of any Improvement or Know-how to the Technology, the Licensor undertakes to inform the Licensee of such Improvement or Know-how and the Licensee may make use of such Improvement or Know-how under the provisions of this Agreement. If such Improvement involves additions to the Know-how, such additions will also be deemed to be part of the Intellectual Property Rights licensed in terms of this Agreement; and

5.2.2 the Licensee makes any Improvement to the Technology, the Licensee will promptly inform the Licensor thereof in writing and all rights in such Improvement shall belong to the Licensee and the Licensor will assist the Licensee to obtain patent, design, trade mark, copyright and all similar forms of protection for such Improvement at the expense of the Licensee.

6 **TECHNICAL INFORMATION AND QUALITY CONTROL**

6.1 **Technical Information and Assistance**

6.1.1 The Licensor shall on the Effective Date and during the Term supply, free of charge, to the Licensee -

6.1.1.1 copies of all such documents containing technical information as may be required or necessary to enable the Licensee to use the Intellectual Property Rights and Technology for the production, distribution, marketing and or sale of the Subject Isotopes in the Territory; and

6.1.1.2 such further information and Know-how relating generally to the materials, methods and processes required by the Licensor for the production, distribution, marketing and or sale of the Subject Isotopes in the Territory.

6.1.2 The Licensor shall –

6.1.2.1 provide, sufficient adequately skilled technical staff able to provide technical assistance to the Licensee in establishing the plant and production facilities necessary to develop the Technology and produce, distribute, market and sale of the Subject Isotopes;

6.1.2.2 advise the Licensee on all matters relating to the purchase of suitable plant, machinery, tools, fixtures and fittings necessary to establish plant and production facilities;

6.1.2.3 advise the Licensee on matters relating to the purchase of suitable sources of raw materials necessary for the use of the Technology;

6.1.2.4 during the Term provide ongoing technical expertise, support, assistance and advice to the Licensee for the purpose of enabling the Licensee to develop the Technology and to produce, distribute, market and sale of the Subject Isotopes. The Licensor will, at the reasonable request of the Licensee make available, for such period as the Licensor in its sole reasonable discretion may determine, technical and other staff for the purposes of fulfilling the Licensor's obligations in terms hereof;

6.1.2.5 provide the Licensee with such assistance as the Licensee may reasonably require, at no charge to the Licensee, to obtain any regulatory approvals as may be required for the Licensee to use the Intellectual Property Rights and the Technology and to produce, distribute, market and sell the Subject Isotope; and

6.1.2.6 do all things and acts that are necessary to ensure that the Licensee can enjoy the full benefits of the license granted under this Agreement and transfer of Know How which shall include allowing the Licensee access to locations where the Know How and other Intellectual Property Rights and/or Technology is kept or stored and generally enabling the Licensee to enjoy those benefits through the release of any passcodes, locks, encryptions or other protection mechanisms designed to secure the Know How and to educate and provide full disclosure on how the Intellectual Property Rights and Technology can be exploited under this Agreement.

6.1.3 It is expressly recorded that the Licensor shall not be responsible or liable for consequential damages or loss of profit which might arise out of the use by the Licensee of any technical information or advice furnished to the Licensee under this Agreement, unless the Licensee can prove on a balance of probabilities that the technical information or advice was wrong or misleading, and that an expert in the field would have known it to be wrong or misleading.

6.2 **Quality control**

The Licensee shall –

6.2.1 use the Technology and produce, distribute and market the Subject Isotopes strictly in accordance with the specifications and quality standards from time to time prescribed by the Licensor;

6.2.2 ensure that the highest standards of workmanship and material available are employed in the use of the Intellectual Property Rights and Technology for the production of the Subject Isotopes; and

6.2.3 upon receipt of reasonable notice, permit the Licensor's duly authorised representatives at all reasonable times to enter the premises where the Technology is being used, or the Subject Isotopes are being produced in order to ascertain whether the Licensor's quality control standards are being adhered to and for this purpose will also have the right to take necessary samples of the Subject Isotopes for examination, testing and analysis.

7 **PAYMENTS**

7.1 **Upfront Payment**

7.1.1 In consideration of the rights and licenses granted under this Agreement, the Licensee shall pay to the Licensor, concurrently with the execution of this Agreement, an initial payment of One Hundred Thousand US Dollars (US$100,000) (the "**Upfront Payment**") which will be included within the payments currently being made by the Licensee to the Licensor under the Turnkey Contract. The Upfront Payment is not refundable. In addition, there will be a deferred payment of Three Hundred Thousand US Dollars (US$300,000), which will be paid over 24 months, subject to a right of set-off against any other liability owed to the Licensee by the Licensor.

8 **WARRANTIES, EXCLUSION OF LIABILITY AND INDEMNITY**

8.1 **Warranties**

8.1.1 The Licensor warrants that to the best of its knowledge, as at the Effective Date–

8.1.1.1 it is the sole beneficial owner of the Intellectual Property Rights and Technology and that it has the right to licence the Intellectual Property Rights and Technology in the Territory;

8.1.1.2 it is free to grant the licence conferred by this Agreement including that it is not prohibited by an regulation or law in granting this license and acting pursuant to this Agreement, and that it has not granted any other licence to the Intellectual Property Rights and Technology in the Territory;

8.1.1.3 the Intellectual Property Rights and Technology is/are valid, enforceable and unencumbered;

8.1.1.4 the Intellectual Property Rights and Technology and the use thereof does not infringe the intellectual property rights of any third party;

8.1.1.5 it's rights in and to the Intellectual Property Rights and Technology have not been contested, in whole or in part, by anyone whomsoever;

8.1.1.6 it has no knowledge of any circumstances or facts that might render the Intellectual Property Rights and Technology invalid, unenforceable, or encumbered; and

8.1.1.7 it has not taken any action or omitted to take any action as a result of which the Intellectual Property Rights and Technology or any part thereof could become unenforceable.

8.1.2 The Licensee expressly acknowledges that under this Agreement the Licensor does not in any way warrant or guarantee either expressly or impliedly the merchantability or fitness of the Technology or the Subject Isotopes.

8.2 **Exclusion of liability**

8.2.1 Subject to this Agreement and to the extent permitted by applicable law, the Licensor disclaims all warranties and representations not recorded in this Agreement, either express or implied with respect to the Intellectual Property Rights and Technology, including but not limited to any implied warranties of merchantability or fitness for any particular purpose.

8.2.2 Save for any claim for damages arising from a breach of warranty in terms of this Agreement, and subject to clause 8.2.3, the Licensor shall not be liable for any loss or damage whatsoever or howsoever caused arising directly or indirectly in connection with the use, or licensing of the Intellectual Property Rights and Technology in any manner by the Licensee.

8.2.3 Save for any claim for damages arising from a breach of warranty in terms of this Agreement, neither Party will be liable to the other Party for any indirect, special, incidental or consequential loss or damage which may arise in respect of the Intellectual Property Rights and Technology, its use or licensing or in any manner by the other Party.

8.3 **Indemnity**

8.3.1 The Licensee hereby indemnifies the Licensor against all claims, costs, damages, losses and expenses which the Licensor may suffer arising from the use of the Intellectual Property Rights and Technology by the Licensee, any breach by the Licensee of its statutory obligations or any breach by the Licensee of its obligations as set forth in clause 11.

8.3.2 The Licensor hereby indemnifies and holds the Licensee harmless against all claims, costs, damages, losses and expenses which the Licensee may suffer or sustain as a direct result of any claim –

8.3.2.1 against the Licensee arising as a result of the failure of any warranty given in this Agreement to be true and correct;

8.3.2.2 that the conduct of the Licensee contemplated in this Agreement has resulted in an infringement of the intellectual property rights of any third party; or

8.3.2.3 that to their knowledge any third party has a prior right in respect of any of the Intellectual Property Rights.

8.3.3 The Licensee undertakes that it will not continue using the Intellectual Property Rights and Technology and will cease producing, distributing, marketing and selling the Subject Isotopes where these activities will increase the potential damages which the Parties could suffer as a result of any claim against them, unless:

8.3.3.1 the Licensee is obligated to do so in terms of any agreement, or

8.3.3.2 the Independent Auditors confirm that the potential damages award will be less than potential profits from ongoing activities such that the risk is mitigated. The Independent Auditors shall act as experts and not as arbitrators, and their determination shall be final and binding on the Parties. The cost of the Independent Experts shall be borne equally by the Parties, or

8.3.3.3 the claim is spurious as agreed between the Parties.

9 **FORCE MAJEURE**

9.1 Delay or failure to comply with or breach of any of the terms and conditions of this Agreement if occasioned by or resulting from an act of God or public enemy, fire, explosion, earthquake, perils of the sea, flood, storm or other adverse weather conditions, war declared or undeclared, civil war, revolution, civil commotion or other civil strife, riots, strikes, blockade, embargo, sanctions, epidemics, act of any government or other authority, compliance with government orders, demands or regulations, or any circumstances of like or different nature beyond the reasonable control of the Party so failing ("***force majeure***"), will not be deemed to be a breach of this Agreement nor will it subject either Party to any liability to the other.

9.2 Should either Party be prevented from carrying out its contractual obligations by reason of *force majeure* lasting continuously for a period of 30 (thirty) days, the Parties will consult with each other regarding the future implementation of this Agreement. If no mutually acceptable arrangement is arrived at within a further period of 10 (ten) days after the expiration of such 30 (thirty) day period, either Party will be entitled to cancel this Agreement forthwith on written notice to the other Party.

10 **TERMINATION OF EXCLUSIVITY**

10.1 The Licensor may terminate the exclusivity of this Agreement with immediate effect upon written notice to the Licensee in the event that the Licensee ceases to use the Intellectual Property Rights and Technology or carry on activities related to isotope enrichment for a period longer than 24 consecutive months (except for reasons of extended force majeure or circumstances beyond the Licensee's control).

11 **CONFIDENTIALITY AND PROTECTION OF INFORMATION**

11.1 Each Party undertakes that during the operation of, and after the expiration, termination or cancellation of, this Agreement for any reason, it will keep confidential all Confidential Information of the other Party.

11.2 If the receiving Party is uncertain about whether any information is to be treated as confidential in terms of this clause 11, it shall be obliged to treat it as such until written clearance is obtained from the disclosing Party.

11.3 Each Party undertakes, subject to clause 11.4, not to disclose any Confidential Information of the other Party, nor to use such information for its own or anyone else's benefit.

11.4 Notwithstanding the provisions of clause 11.3, the Licensee shall be entitled to disclose any Confidential Information if and to the extent only that the disclosure is *bona fide* and necessary for the purposes of using the Intellectual Property Rights and Technology and/or producing, distributing, marketing and selling the Subject Isotopes pursuant to this Agreement, and only if the party to whom the information is disclosed provides a written undertaking to both the Licensee and Licensor that such information shall be kept confidential.

11.5 The obligation of confidentiality placed on the receiving Party in terms of this clause 11 shall cease to apply to the receiving Party in respect of any Confidential Information which –

11.5.1 is or becomes generally available to the public other than by the negligence or default of the receiving Party or by the breach of this Agreement by the receiving Party;

11.5.2 the disclosing Party confirms in writing is disclosed on a non-confidential basis;

11.5.3 has lawfully become known by or come into the possession of the receiving Party on a non-confidential basis from a source other than the disclosing Party having the legal right to disclose same, provided that such knowledge or possession is evidenced by the written records of the receiving Party existing at the Effective Date; or

11.5.4 is disclosed pursuant to a requirement or request by operation of law, regulation or court order, to the extent of compliance with such requirement or request only and not for any other purpose,

provided that –

11.5.5 the onus shall at all times rest on the receiving Party to establish that information falls within the exclusions set out in clauses 11.5.1 to 11.5.4;

11.5.6 information will not be deemed to be within the foregoing exclusions merely because such information is embraced by more general information in the public domain or in the receiving Party's possession; and

11.5.7 any combination of features will not be deemed to be within the foregoing exclusions merely because individual features are in the public domain or in the receiving Party's possession, but only if the combination itself and its principle of operation are in the public domain or in the receiving Party's possession.

11.6 In the event that the receiving Party is required to disclose Confidential Information as contemplated in clause 11.5.4, the receiving Party will –

11.6.1 advise the disclosing Party thereof in writing prior to disclosure, if possible;

11.6.2 take such steps to limit the disclosure to the minimum extent required to satisfy such requirement and to the extent that it lawfully and reasonably can;

11.6.3 afford the disclosing Party a reasonable opportunity, if possible, to intervene in the proceedings;

11.6.4 comply with the disclosing Party's reasonable requests as to the manner and terms of any such disclosure; and

11.6.5 notify the disclosing Party of, and the form and extent of, any such disclosure or announcement immediately after it is made.

11.7 All documentation concerning the Intellectual Property Rights remains the exclusive property of the Licensor and upon termination of this Agreement will be returned to the Licensor. The Licensee undertakes to prevent the unauthorised use of such documentation and will not make copies of any such documentation without the prior written consent of the Licensee.

12 BREACH

Should any Party ("**Defaulting Party**") commit a breach of any of the provisions of this Agreement, then the other Party ("**Aggrieved Party**"), shall be obliged to give the Defaulting Party 10 (ten) Business Days written notice or such longer period as may be reasonably required in the circumstances, to remedy the breach. If the Defaulting Party fails to comply with the notice, the Aggrieved Party shall be entitled to claim immediate payment and/or specific performance by the Defaulting Party of all the Defaulting Party's obligations without prejudice to the Aggrieved Party's rights to claim damages. The foregoing is without prejudice to any other rights as the Aggrieved Party may have at law, provided that the Aggrieved Party shall not be entitled to cancel this Agreement for any breach by the Defaulting Party.

13 DISPUTE RESOLUTION

13.1 The Parties agree that the terms of this Agreement will be performed in the spirit of mutual co-operation, trust and confidence. The Parties further agree to use their reasonable endeavours to resolve, through mutual consultation, without involving any third party or parties, any dispute which may arise under, out of, or in connection with or in relation to this Agreement. If following such mutual consultation, the dispute still remains outstanding, the matter shall be referred to the chief executive officer of each Party to the dispute or their respective representatives, who shall negotiate for a period of up to 5 (five) Business Days from the date of such referral in an attempt to resolve such dispute. If following the expiry of such 5 (five) Business Day period, the dispute is still unresolved, then, save where otherwise provided in this Agreement, the matter shall be referred to arbitration in accordance with the remaining provisions of this clause 13.

13.2 This clause 13 is a separate, divisible agreement from the rest of this Agreement and shall -

13.2.1 not be or become void, voidable or unenforceable by reason only of any alleged misrepresentation, mistake, duress, undue influence, impossibility (initial or supervening), illegality, immorality, absence of consensus, lack of authority or other cause relating in substance to the rest of the Agreement and not to this clause 13, which issue, the Parties intend, shall be subject to arbitration in terms of this clause 13; and

13.2.2 remain in effect even if the Agreement terminates or is cancelled.

13.3 Save Any dispute between the Parties as referred to in clause 13.4 that revolves around a factual matter, shall be referred to an expert for determination, which determination in the absence of manifest error in calculation, shall be final and binding on the Parties, and shall not be referred to arbitration. If the Parties cannot agree on the identity of such an expert, or whether the matter is a factual matter for determination, those determinations shall be referred to a person appointed in accordance with the provisions of clause 13.5 below.

13.4 Save to the extent to the contrary provided for in this Agreement, any dispute arising out of or in connection with this Agreement or the subject matter of this Agreement including, without limitation, any dispute concerning –

13.4.1 the existence of this Agreement apart from this clause 13;

13.4.2 the interpretation and effect of this Agreement;

13.4.3 the Parties' respective rights or obligations under this Agreement;

13.4.4 the rectification of this Agreement;

13.4.5 the breach, termination or cancellation of this Agreement or any matter arising out of such breach, termination or cancellation;

13.4.6 damages in contract, in delict, compensation for unjust enrichment; or

13.4.7 any other claim whether or not the rest of this Agreement apart from this clause 13 is valid and enforceable,

shall be decided by arbitration as set out in this clause 13.

13.5 The Parties to this dispute shall agree on the arbitrator. If agreement is not reached within 10 (ten) Business Days after any Party to the dispute in writing calls for agreement, the arbitrator shall be a practising commercial attorney or advocate of at least 10 (ten) years standing on the panel of arbitrators of the Arbitration Foundation of Southern Africa ("**AFSA**") nominated at the request of any Party to the dispute by the Registrar of AFSA for the time being.

13.6 The request to nominate an arbitrator shall be in writing outlining the claim and any counterclaim of which the Party to the dispute concerned is aware and, if desired, suggesting suitable nominees for appointment, and a copy shall be furnished to the other Parties to the dispute who may, within 5 (five) Business Days, submit written comments on the request to the addressor of the request.

13.7 The arbitration shall, unless otherwise agreed between the Parties to the dispute, be held in Johannesburg and the Parties shall endeavour to ensure that it is completed as soon as reasonably possible after notice requiring the claim to be referred to arbitration is given.

13.8 The proceedings in the arbitration shall as far as practicable take place in private and be kept confidential.

13.9 The arbitration shall be governed by the Arbitration Act, No. 42 of 1965, as amended, or any replacement act and shall take place in accordance with the Commercial Arbitration Rules of AFSA.

13.10 The decision resulting from such arbitration shall be subject to a right of appeal to a panel of 3 (three) arbitrators as provided for in the Commercial Arbitration Rules of AFSA whose decision shall, or, in the event that the single arbitrator's decision shall not have timeously been taken on appeal, the decision of the single arbitrator shall, in the absence of manifest error, be final and binding upon the Parties to the dispute, and may be made an order of any court of competent jurisdiction.

13.11 This clause 13 shall not preclude any Party to a dispute from obtaining interim relief on an urgent basis from a court of competent jurisdiction pending the decision of the arbitrator or panel of arbitrators, on appeal.

13.12 A written notice by any Party to the dispute requesting the nomination of an arbitrator, shall be deemed to be a legal process for the purpose of interrupting extinctive prescription in terms of the Prescription Act, No. 68 of 1969.

14 **NOTICES AND *DOMICILIA***

14.1 The Parties choose as their *domicilia citandi et executandi* their respective addresses set out in this 14 for all purposes arising out of or in connection with this Agreement, at which addresses all the processes and notices arising out of or in connection with this Agreement, its breach or termination, may validly be served upon or delivered to the Parties.

14.2 For the purposes of this Agreement, the Parties' respective addresses shall be -

14.2.1 as regards the Licensor at Building 46, CSIR Campus, Meiring Naude Road, Brummeria, Pretoria, 0184

facsimile number: (012) 349 2128

email address: einar.ronander@klydon.co.za

marked for the attention of: Dr E Ronander

14.2.2 as regards the Licensee at, Unit 19 2nd floor , 1 Melrose Boulevard, Melrose Arch, Gauteng, 2076

Email address: pmann@aspisotopes.com

marked for the attention of: Paul Mann

14.3 Any notice given in terms of this Agreement shall be in writing and shall -

14.3.1 if delivered by hand, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of delivery;

14.3.2 if transmitted by facsimile, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of despatch; and

14.3.3 if delivered by recognised international courier service, be deemed to have been duly received by the addressee on the 1st (first) Business Day following the date of such delivery by the courier service concerned,

provided that the relevant notice is marked for the attention of the relevant Party's designated person for receipt of any processes and notices in connection with this Agreement as contemplated in 14.2.

14.4 Notwithstanding anything to the contrary contained in this Agreement, a written notice or communication actually received by the relevant Party's designated person for receipt of any processes and notices in connection with this Agreement as contemplated in 14.2 from another Party, shall be adequate written notice or communication to such Party.

15 **MISCELLANEOUS AND WARRANTY OF AUTHORITY**

15.1 **Change of control or status**

If there is a change of control or status of the Licensor or Licensor commits an act of insolvency or the ownership of the Intellectual Property Rights and/or Technology become vulnerable to claims by third parties, the Licensee shall have the right to call for the immediate and permanent assignment of the Intellectual Property Rights and Technology into its name for no additional consideration and the Licensor shall, if called upon to do so, assign over such Intellectual Property Rights and Technology.

15.2 **Non- Assignment**

Neither Party may assign, directly or indirectly, this Agreement or any of the rights under it to a third party without the other Party's prior written consent which cannot unreasonably be withheld, except that the Licensee may assign such rights for the purpose of re-structuring without the need for the consent of the Licensor.

15.3 **Warranty of Authority**

Each Party warrants to each of the other Parties that it has the power, authority and legal right to sign and perform this Agreement and that this Agreement constitutes valid and binding obligations on it in accordance with the terms of this Agreement and, in respect of each Party that is a company, has been duly authorised by all necessary actions of its directors.

15.4 **Independent Advice**

Each Party hereto acknowledges that it has been free to secure independent legal advice as to the nature and effect of all of the provisions of this Agreement and that it has either taken such independent legal advice or dispensed with the necessity of doing so. Further, each Party hereto acknowledges that all of the provisions of this Agreement and the restrictions herein contained are fair and reasonable in all the circumstances and are part of the overall intention of the Parties in connection with the Company.

15.5 **Implementation**

The Parties undertake to do all such things, perform all such acts and take all steps to procure the doing of all such things and the performance of all such acts, as may be necessary or incidental to give or be conducive to the giving of effect to the terms, conditions and import of this Agreement.

15.6 **Payment**

15.6.1 Any payment payable in terms of this Agreement shall be net of any withholding taxes, other taxes, duties or levies, if any, payable in respect of such payment except to the extent that VAT is payable on such amount in which case the relevant amount shall include the relevant VAT amount.

15.6.2 Any amount not paid when due and payable under this Agreement shall bear interest at the Prime Rate from the due date to date of payment in full.

15.7 **Whole Agreement**

This Agreement constitutes the whole agreement between the Parties as to the subject matter hereof and no agreement, representations or warranties between the Parties other than those set out herein are binding on the Parties. This Agreement may only be varied by mutual written agreement. This Agreement overrides, supersedes and cancels all other license agreements between the Parties in respect of the Intellectual Property and/or Technology namely the agreements signed on 30 September 2021 (as amended in June 2022) and 25 January 2022.

15.8 **Variation**

No addition to or variation, consensual cancellation or novation of this Agreement and no waiver of any right arising from this Agreement or its breach or termination shall be of any force or effect unless reduced to writing and signed by each of the Parties or their duly authorised representatives.

15.9 **Relaxation**

No latitude, extension of time or other indulgence which may be given or allowed by either Party to the other Party in respect of the performance of any obligation hereunder or enforcement of any right arising from this Agreement and no single or partial exercise of any right by either Party shall under any circumstances be construed to be an implied consent by such Party or operate as a waiver or a novation of, or otherwise affect any of that Party’s rights in terms of or arising from this Agreement or estop such Party from enforcing, at any time and without notice, strict and punctual compliance with each and every provision or term hereof.

15.10 **Counterparts**

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be taken together and deemed to be one instrument.

Signed at Pretoria on this the 26th day of July 2022

/s/ Carl Ronander For: **Klydon (PTY) Limited**

Duly Authorised

Name: Carl Ronander

Designation: Financial Manager / Director

Signed at Pretoria on this the 26th day of July 2022

/s/ Robert Ainscow For: **ASP Isotopes UK LTD**

Duly Authorised

Name: Robert Ainscow

Designation: Director

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the inclusion in this Amendment No. 1 to the Registration Statement of ASP Isotopes Inc. on Form S-1 (No. 333-267392) to be filed on or about October 11, 2022 of our report dated April 21, 2022, on our audit of the financial statements as of December 31, 2021 and for the period from September 13, 2021 (inception) through December 31, 2021. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. We also consent to the reference to our firm under the caption “Experts” in this Registration Statement.

/s/ EisnerAmper LLP

EISNERAMPER LLP
Iselin, NJ
October 10, 2022

Exhibit 107

CALCULATION OF FILING FEE TABLE
Form S-1
(Form Type)

ASP Isotopes Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common stock, par value $0.01 per share (1)	Rule 457(a)	2,300,000(2)	$ 7.00	$ 16,100,000	$ 0.0001102	$ 1,774.22
			Total Offering Amounts					$ 1,774.22
			Total Fees Previously Paid					$ 2,781.00
			Total Fee Offsets					$ 0.00
			Net Fee Due					$ 0.00

(1) Pursuant to Rule 416 under the Securities Act, there is also being registered hereby such indeterminate number of additional shares of common stock as may be issued or issuable because of stock splits, stock dividends and similar transactions.

(2) Includes 300,000 shares that the underwriters have the option to purchase.