

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

FORM 10-K/A

(Amendment No. 1)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the year ended December 31, 2023

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 001-39069

ASP Isotopes Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

87-2618235

(I.R.S. Employer Identification No.)

1101 Pennsylvania Avenue NW, Suite 300

Washington, DC

(Address of principal executive offices)

20004

(Zip code)

(202) 756-2245

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol</u>	<u>Name of exchange on which registered:</u>
Common stock, par value \$0.01 per share	ASPI	The Nasdaq Capital Market LLC

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated Filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the voting stock held by non-affiliates of the registrant as of April 8, 2024 was approximately \$119.2 million.

There were 48,923,276 shares of the registrant's common stock, \$0.01 par value, outstanding as of April 8, 2024.

DOCUMENTS INCORPORATED BY REFERENCE

None.



EXPLANATORY NOTE

ASP Isotopes Inc. ("ASP Isotopes," the "Company," "we," "us," or "our") is filing this Amendment No. 1 on Form 10-K/A (this "Amendment") to amend our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, originally filed with the Securities and Exchange Commission (the "SEC") on April 10, 2024 (the "Original Filing"), to include the information required by Items 10 through 14 of Part III of Form 10-K. We previously omitted this information from our Original Filing in reliance on General Instruction G(3) to Form 10-K, which permits the information in the above-referenced items to be incorporated in the Original Filing by reference to our definitive proxy statement if such statement is filed no later than 120 days after our fiscal year-end. We are filing this Amendment to provide the information required in Part III of Form 10-K because we will not file a definitive proxy statement containing that information within 120 days after the end of the fiscal year covered by our Original Filing.

This Amendment amends and restates in their entirety Items 10, 11, 12, 13 and 14 of Part III of our Original Filing. The cover page of our Original Filing is also amended to delete the reference to the incorporation by reference of portions of our definitive proxy statement into Part III of the Original Filing. The cover page of our Original Filing is also amended to correct the checkbox on the cover page to reflect "Yes" regarding our (1) having filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) having been subject to such filing requirements for the past 90 days. Our Original Filing was filed with the box incorrectly checked "No." In addition, as required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), Item 15 of Part IV of the Original Filing is hereby amended solely to include, as Exhibits 31.3 and 31.4, new certifications by the Company's Principal Executive Officer and Principal Financial Officer pursuant to Rule 13a-14(a) under the Exchange Act.

Except as described above, this Amendment does not amend any other information set forth in the Original Filing, and the Company has not updated disclosures included therein to reflect any subsequent events. Accordingly, this Amendment should be read in conjunction with our Original Filing and with our filings with the SEC subsequent to the Original Filing.

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PART III

Item 10. Directors, Executive Officers and Corporate Governance

The Board of Directors

Our business affairs are managed under the direction of our board of directors, which is currently comprised of six members, four of whom are “independent” under the listing standards of the Nasdaq Stock Market LLC (“Nasdaq”). Our board of directors is divided into three classes with staggered three-year terms. At each annual meeting of stockholders, a class of directors is elected for a three-year term to succeed the same class whose term is then expiring.

The following table sets forth the names, ages as of April 26, 2024, and certain other information for each of the directors.

Name	Class	Age	Position	Director Since	Term Expires
Paul Mann	I	48	Executive Chairman and Chief Executive Officer	2021	2026
Michael Gorley, Ph.D. (2)	II	36	Director	2023	2024
Duncan Moore, Ph.D. (1)(2)(3)(4)	II	64	Director	2021	2024
Robert Ryan (1)(2)	I	55	Director	2024	2026
Hendrik Strydom, Ph.D.	III	63	Chief Technology Officer and Director	2021	2025
Todd Wider, M.D.(1)(3)	III	58	Director	2021	2025

- (1) Member of our audit committee
- (2) Member of our nominating and corporate governance committee
- (3) Member of our compensation committee
- (4) Member of our special projects committee

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 ASPI, 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.

Professor Michael Gorley, Ph.D., joined our board of directors in October 2023. Prof. Gorley has served as Chief Technologist at the UK Atomic Energy Authority (UKAEA) since September 2020. In this role, for the past three years Prof. Gorley has served as a strategic leader and program area manager for fusion technology at UKAEA. Prior to assuming his current role at UKAEA, Prof. Gorley was Materials Technology Group Leader from August 2018 to September 2020 and Materials Technology Programme Manager from June 2016 to August 2018. In these roles, Prof. Gorley directed the establishment of the Materials Technology Group and supporting Materials Testing Laboratories, and led the EUROfusion Engineering Data and Design Integration group. In addition, Prof. Gorley has been a visiting professor at the University of Bristol, U.K. since June 2021. Prof. Gorley received a Ph.D. (DPhil) in Materials Science from Oxford University, U.K., with a thesis on ODS steels (specialized alloys for high-performance applications).

We believe that Prof. Gorley's significant expertise in fusion technology and fusion materials contributes to the Board's understanding and ability to analyze and navigate complex regulatory and business issues.

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.

Robert Ryan is a private investor with more than 30 years' experience in investment banking, private equity and international financial law. Mr. Ryan was a partner of Balbec Capital LP from January 2019 to July 2023 and a managing director of Balbec Capital LP from January 2013 to January 2019. Prior to joining Balbec Capital LP, Mr. Ryan was associated with a number of international investment banks. Mr. Ryan started his career as a solicitor at a leading U.K. multinational law firm. Mr. Ryan received a LL.B. degree from the University of Leicester.

The Board believes that Mr. Ryan's significant board experience and financial expertise 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.

Hendrik Strydom, Ph.D. 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 (subsequently named Klydon), a research and development company which developed the ASP. Klydon, where Dr. Strydom served 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 sold 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.

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.

Committees of the Board of Directors

Our board of directors has three standing committees: the audit committee, the compensation committee, and the nominating and corporate governance committee, each of which operates pursuant to a charter adopted by our board of directors. Our board of directors may also establish other committees from time to time to assist the board of directors. As of the date of this annual report, the composition and functioning of all of our committees comply with all applicable requirements of the Sarbanes-Oxley Act, Nasdaq and SEC rules and regulations. Each committee's charter is available on the Investor Relations portion of our website at <https://investors.aspisotopes.com> under Governance.

Audit Committee

The members of our audit committee are Todd Wider, Duncan Moore and Robert Ryan, with Dr. Wider serving as chair. The audit committee, which was formed in November 2022 in connection with the listing of our stock on Nasdaq, did not meet during 2022. Our board of directors has determined that each member of the audit committee has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated Mr. Ryan as an "audit committee financial expert," as defined under the applicable rules of the SEC. Our board of directors has determined that each member of the audit committee meets the independence requirements for audit committees required under Section 10A of the Exchange Act and the applicable Nasdaq rules. The audit committee's responsibilities include:

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- 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 are 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 Dr. Moore serving as chair. The compensation committee, which was formed in November 2022 in connection with the listing of our stock on Nasdaq, did not meet during 2022. 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 are considered 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 required by the SEC, including our "Executive Compensation" disclosure.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are Robert Ryan, Duncan Moore and Michael Gorley, with Mr. Ryan serving as chair. The nominating and corporate governance committee, which was formed in November 2022 in connection with the listing of our stock on Nasdaq, did not meet during 2022. 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 a set of corporate governance guidelines; and
- overseeing the evaluation of our board of directors and management.

Special Projects Committee

In August 2023, the board of directors created the special projects committee whose responsibilities include to research, evaluate and negotiate strategic opportunities and alternatives available to the company, including potential joint ventures, collaborations and other key strategic transactions, and to make reports and recommendations to the board of directors. Dr. Moore was appointed to the special projects committee.

Our Executive Officers

The following table sets forth information regarding our executive officers as of April 26, 2024:

Name	Age	Position(s)
Paul E. Mann	48	Chairman and Chief Executive Officer
Hendrik Strydom, Ph.D.	63	Chief Technology Officer and Director
Robert Ainscow	48	Interim Chief Financial Officer

Paul E. Mann. Please see the biographical information provided above in the section entitled “Board of Directors.”

Hendrik Strydom, Ph.D. Please see the biographical information provided above in the section entitled “Board of Directors.”

Robert Ainscow. Mr. 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 Zenic 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 offshore. 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 platform.

Code of Business Conduct

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. A copy of the code is posted on the Investor Relations section of our website at www.aspisotopes.com. 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.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires our executive officers, directors and persons who own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC. Executive officers, directors and greater than ten-percent shareholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file. SEC regulations require us to identify in this report anyone who filed a required report late during the most recent fiscal year.

Based solely on our review of the copies of such forms furnished to us and the written representations from certain of the reporting persons that no other reports were required during the year ended December 31, 2023, all executive officers, directors and greater than ten-percent beneficial owners complied with the reporting requirements of Section 16(a), except that one late Form 3 report and one late Form 4 report was filed for each of Professor Gorley and Mr. Ryan on February 26, 2024 to report one transaction for Professor Gorley and five transactions for Mr. Ryan.

Item 11. Executive Compensation

Processes and Procedures for Compensation Decisions

Our compensation committee is responsible for the executive compensation programs for our executive officers and reports to our board of directors on its discussions, decisions and other actions. Typically, our Chief Executive Officer makes recommendations to our compensation committee, often attends committee meetings and is involved in the determination of compensation for the respective executive officers who report to him, except that the Chief Executive Officer does not make recommendations as to his own compensation. Our Chief Executive Officer makes recommendations to our compensation committee regarding short- and long-term compensation for all executive officers (other than himself) based on our results, an individual executive officer's contribution toward these results and performance toward individual goal achievement. Our compensation committee then reviews the recommendations and other data and makes decisions as to total compensation for each executive officer, as well as each individual compensation component. Our compensation committee reviews and approves, or makes recommendations for approval by the independent members of the board of directors regarding, the compensation of each executive officer, including our Chief Executive Officer.

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Our compensation committee is authorized to retain the services of one or more executive compensation advisors, as it sees fit, in connection with the establishment of our compensation programs and related policies.

Our named executive officers for 2023, which consist of our principal executive officer and our next two most highly compensated executive officers, were as follows:

- Paul Mann, our Executive Chairman and Chief Executive Officer;
- Hendrik Strydom, Ph.D., our Chief Technology Officer; and
- Robert Ainscow, our Chief Financial Officer and Chief Operating Officer.

2023 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the years ended December 31, 2023 and 2022.

Name and Principal Position		Salary (\$)	Bonus (\$)	Stock Awards (\$)⁽⁴⁾	Option Awards (\$)⁽⁴⁾	Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$)	Total (\$)
Paul Mann, Chairman and Chief Executive Officer ⁽¹⁾	2023	480,000		1,292,657	—			1,772,657
	2022	260,000		4,210,000	1,429,007			5,899,007
Hendrik Strydom, Ph.D., Chief Technology Officer ⁽²⁾	2023	122,400		—	—			122,400
	2022	240,000		526,000	312,486			1,078,486
Robert Ainscow, Chief Financial Officer and Chief Operating Officer ⁽³⁾	2023	159,996		—	—			159,996
	2022	133,333		1,657,000	173,070			1,963,403

- (1) Mr. Mann has served as our Chairman and Chief Executive Officer since September 2021.
- (2) Mr. Strydom has served as our Chief Technology Officer since January 2022.
- (3) Mr. Ainscow has served as our Interim Chief Financial Officer since September 2022 and was appointed Chief Financial Officer and Chief Operations Officer in April 2024.
- (4) In accordance with SEC rules, these columns reflect the aggregate grant date fair value of the restricted stock awards granted during 2022 and 2023. 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 the recipient upon the vesting of the stock awards or the sale of the Common Stock underlying such awards.

Employment arrangements

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 was amended in December 2022 and April 2024, which governs the current terms of his employment with us as Executive Chairman and Chief Executive Officer. Pursuant to the agreement, Mr. Mann is entitled to a base salary of \$520,000 per annum (subject to annual adjustments by the board of directors), 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 \$8.33 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 \$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 \$16.67 million 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.

During his employment, Mr. Mann shall receive an equity award equal to two percent (2%) of the Company's outstanding common shares as of the company's immediately preceding fiscal year, which shall be granted on March 1 of each year and vest quarterly over a 12-month period.

Mr. Mann's employment agreement, as amended, has an initial term of five years ending on April 5, 2029 and will automatically renew for successive one-year periods unless either party provides notice of non-renewal at least three months prior to expiration of the then-current term. 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 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 amendments to Mr. Ainscow's employment agreement in September 2022 in connection with his appointment as Interim Chief Financial Officer and in April 2024 in connection with his appointment as Chief Operating Officer and Chief Financial Officer. Pursuant to the agreement (as amended), Mr. Ainscow is entitled to a base salary of \$360,000 per annum (subject to annual adjustments by the board of directors), 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, as amended, has an initial term of three years ending on April 5, 2027 and will automatically renew for successive one-year periods unless either party provides notice of non-renewal at least three months prior to expiration of the then-current term. 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.

Henrik Strydom.

We also entered into an executive employment agreement with Henrik Strydom in January 2022 pursuant to which he was appointed as Executive Vice President and Chief Technology Officer. Pursuant to the agreement, Mr. Strydom is entitled to an initial base salary of \$240,000 per annum (which will increase to \$480,000 per annum when the company has produced 250 grams of commercial product), 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.

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Subject to our achievement of \$4.167 million in average monthly revenues for a trailing three-month period Mr. Strydom will be paid a \$250,000 bonus. Subject to our achievement of \$8.33 million in average monthly revenues for a trailing three-month period Mr. Strydom will be paid an additional \$250,000 bonus. Subject to our achievement of \$12.5 million in average monthly revenues for a trailing three-month period Mr. Strydom will be paid an additional \$250,000 bonus. Subject to our achievement of \$16.67 million in average monthly revenues for a trailing three-month period Mr. Strydom will be paid an additional \$250,000 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. Strydom shall be determined by dividing the \$250,000 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. Strydom's employment agreement has an initial term of one year and will automatically renew for successive one-year periods unless either party provides notice of termination. Mr. Strydom is also entitled to certain severance benefits under his employment agreement.

Upon a termination of Mr. Strydom'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. Strydom will receive reimbursement of COBRA premiums for up to an 18-month period.

Upon a termination of Mr. Strydom'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. Strydom 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. Strydom's stock options (as well as any other exercisable equity awards) will remain exercisable until the earlier of one year after Mr. Strydom's termination or the original maximum permitted term of the equity award.

Health benefits

We provide customary employee benefits to eligible employees, including to our NEOs, including medical, dental and vision benefits, short-term and long-term disability insurance, basic and supplemental life insurance and basic and supplemental accidental death and dismemberment insurance.

Nonqualified deferred compensation

We do not maintain nonqualified defined contribution plans or other nonqualified deferred compensation plans.

Perquisites

We generally do not provide perquisites or personal benefits to our NEOs.

Compensatory Actions after Fiscal Year End

As described above, the Chief Executive Officer and Chief Financial Officer are eligible to receive annual bonuses in accordance with the terms of their respective employment agreements, with the amount of such bonus and whether such bonus is paid in cash or stock (or a mix of cash and stock) to be determined by the board of directors in its discretion, based on a recommendation of the compensation committee. As previously disclosed in the Original Filing, on April 5, 2024, in recognition of the contributions of Paul Mann and Robert Ainscow to the company in 2023, the board of directors approved, based on a recommendation by the compensation committee, a discretionary cash bonus for 2023 of \$440,000 and \$90,000, respectively.

In addition, on April 5, 2024, the board of directors approved amendments to the employment agreements with Messrs. Mann and Ainscow and Dr. Strydom. As a result of the amendments to their respective employment agreements, Mr. Mann was appointed Executive Chairman and Chief Executive Officer and Mr. Ainscow was appointed Chief Operating Officer and Chief Financial Officer; and the base salaries of Mr. Mann, Mr. Ainscow and Dr. Strydom were increased to \$520,000, \$360,000 and \$180,000, respectively.

Outstanding Equity Awards at December 31, 2023

The following table sets forth information regarding outstanding option awards held by our named executive officers as of December 31, 2023.

Name	Option Awards				Stock Awards	
	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 (7)
Paul Mann	735,578	480,422	\$ 2.00		(1) 2,429,535(2)	\$ 4,348,868
Hendrik Strydom, Ph.D.	137,688	127,312	\$ 2.00		(3) 100,000(4)	\$ 179,000
Robert Ainscow	194,186	102,814	\$ 2.00		(5) 450,000(6)	\$ 805,500

- (1) The amounts reported include 216,000 options granted on April 4, 2022, which vest on April 4, 2023 and expire on April 4, 2032, and 1,000,000 options granted on June 10, 2022, which vest monthly over three years and expire on June 10, 2032.
- (2) This amount reported reflects (i) 1,500,000 shares of performance-based restricted Common Stock granted by us to Mr. Mann in October 2021, which vest upon achieving certain performance conditions and market conditions upon the third anniversary of the date of grant, (ii) 1,000,000 restricted shares of Common Stock awarded by us to Mr. Mann on November 15, 2022 upon completion of our IPO, which vest annually over four years, and (iii) 1,000,000 restricted shares of our Common Stock awarded by us to Mr. Mann on December 30, 2022, which vest quarterly over one year.
- (3) The amounts reported include 265,000 options granted on June 10, 2022, which vest monthly over three years and expire on June 10, 2032.
- (4) The amount reported includes 200,000 restricted shares of Common Stock awarded by us to Mr. Strydom on November 15, 2022, upon completion of our IPO, which vest annually over two years.
- (5) The amounts reported include (i) 150,000 options granted in October 2021, which vest monthly over 36 months and expire on October 4, 2031, (ii) 12,000 options granted on April 4, 2022, which will vest on April 4, 2023 and expire on April 4, 2032, and (iii) 135,000 options granted on June 10, 2022, which vest monthly over three years and expire on June 10, 2032.
- (6) The amount reported includes (i) 600,000 restricted shares of Common Stock awarded by us to Mr. Ainscow on November 15, 2022, upon completion of our IPO, which vest annually over three years, and (ii) 50,000 restricted shares of our Common Stock awarded by us to Mr. Ainscow on December 30, 2022, which vest quarterly over one year.
- (7) This amount reflects the market value of our Common Stock of \$1.79 per share as of December 31, 2023 multiplied by the amount shown in the column for the number of shares that have not vested.

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, 2023. The table does not include Mr. Mann, our Executive Chairman and Chief Executive Officer, or Dr. Strydom, our Chief Technology Officer, neither of whom received additional compensation for his service as a director. In addition, the table does not include Mr. Ryan, a non-employee director who joined the board in January 2024.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Options (\$)	Total (\$)
Josh Donfeld(1)	60,000	—	—	60,000
Michael Gorley, Ph.D.(2)	15,000	—	—	15,000
Duncan Moore, Ph.D.	60,000	—	—	60,000
Sergey Vasnetsov(3)	—	969,493	—	3,568,000
Todd Wider, M.D.	60,000	—	—	60,000

- (1) Mr. Donfeld resigned from the board in January 2024 and was replaced by Mr. Ryan.
- (2) Professor Gorley joined the board in November 2023.
- (3) Mr. Vasnetsov's compensation for 2023 consists of stock awards for his services as a director and a consultant to the Company. Mr. Vasnetsov resigned from the board in November 2023 and was replaced by Professor Gorley.

We have entered into director agreements with our current non-employee-directors 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 fee is 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 annually each year during the director's term. Directors who are also our employees will not receive fees for service on our board of directors.

Hedging and Pledging Prohibitions

As part of our Insider Trading Policy, our employees (including our executive officers and the non-employee members of our board of directors) are prohibited from trading in publicly-traded options, such as puts and calls, and other derivative securities with respect to our securities. This includes any hedging or similar transaction designed to decrease the risks associated with holding shares of our common stock.

In addition, our employees (including our executive officers and the non-employee members of our board of directors) are prohibited from holding our common stock in a margin account or pledging our securities as collateral for a loan.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table sets forth information relating to the beneficial ownership of our common stock as of April 26, 2024, by:

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

The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days of April 26, 2024, through the exercise of any stock option, warrants or other rights or vesting of restricted stock units. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by that person.

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The percentage of shares beneficially owned is computed on the basis of 51,762,833 shares of our common stock outstanding as of April 26, 2024. Shares of our common stock that a person has the right to acquire within 60 days of April 26, 2024, are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o ASP Isotopes Inc., 1101 Pennsylvania Avenue NW, Suite 300, Washington, DC 20004.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned(1)
5% and Greater Stockholders		
AK Jensen Investment Management Ltd (2)	6,516,874	12.6%
Einar Ronander, Ph.D. (3)	2,097,424	4.0%
Sergey Vasnetsov (4)	3,838,607	7.4%
Named Executive Officers and Directors		
Paul Mann (5)	6,706,499	13.0%
Robert Ainscow (6)	1,141,290	2.2%
Hendrick Strydom, Ph.D. (7)	2,478,911	4.8%
Michael Gorley, Ph.D. (8)	93,458	* %
Duncan Moore, Ph.D. (9)	950,167	1.8%
Robert Ryan	551,555	1.1%
Todd Wider, M.D. (10)	590,844	1.1%
All current executive officers and directors as a group (7 persons) (11)	12,512,724	24.2%

* Less than one percent.

- (1) Percentage ownership is calculated based on 51,762,833 shares of our common stock outstanding on April 26, 2024.
- (2) The securities are directly held by Tees River Critical Resources Fund or other funds and accounts ("AK Jensen Funds") to which AK Jensen Investment Management Limited ("AK Jensen") serves as the investment manager. Anders K. Jensen ("Mr. Jensen") and Duncan P. Saville ("Mr. Saville") may be deemed to indirectly control AK Jensen. AK Jensen and Messrs. Jensen and Saville disclaim beneficial ownership of the securities except to the extent of their pecuniary interest therein, if any. The address of AK Jensen is 1 Cornhill, London, EC3V 3ND.
- (3) 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.
- (4) Consists of (i) 1,000,000 shares held by Elista LLC, (ii) 600,000 restricted shares of Common Stock granted by us to ChemBridges LLC in October 2021, which vest quarterly over one year and are subject to forfeiture, (iii) 600,000 restricted shares of Common Stock granted by us to ChemBridges LLC in July 2022, which vest quarterly over one year, (iv) 600,000 restricted shares of Common Stock awarded by us to ChemBridges LLC on November 15, 2022, which vest over four years, (v) 500,000 restricted shares of Common Stock awarded by us to ChemBridges LLC on December 30, 2022, which vest over one year, and (vi) 538,607 restricted shares of Common Stock awarded by us to ChemBridges LLC on March 1, 2023, which vest over one year. Mr. Vasnetsov has voting and dispositive power over the securities held by Elista LLC, whose address is P.O. Box 2291, Toa Baja 00951 Puerto Rico, as trustee of Eliona Trust (a family trust and owner of Elista LLC). Mr. Vasnetsov has voting and dispositive power over the securities held by ChemBridges LLC, whose address is P.O. Box 2291, Toa Baja 00951 Puerto Rico, as the President and owner of ChemBridges LLC.
- (5) 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, (iii) 37,500 shares of common stock purchased in our Initial Public Offering, (iv) 1,000,000 restricted shares awarded by us to Mr. Mann on November 15, 2022, which vest over four years, (v) 1,000,000 restricted shares of common stock awarded by us to Mr. Mann on December 30, 2022, which vest over one year, (vi) 718,143 restricted shares of common stock awarded by us to Mr. Mann on March 1, 2023, which vest over one year, and (vii) 688,222 shares of Common Stock issuable upon exercise of options held by Mr. Mann exercisable within 60 days of April 26, 2024.
- (6) Consists of (i) 250,000 shares of Common Stock held by Mr. Ainscow (ii) 600,000 shares of Common Stock awarded by us to Mr. Ainscow on November 15, 2022, which vest over four years (iii) 50,000 restricted shares of Common Stock awarded by us to Mr. Ainscow on December 30, 2022, which vest over one year, and (iv) 179,917 shares of Common Stock issuable upon exercise of options held by Mr. Ainscow exercisable within 60 days of April 26, 2024.
- (7) Consists of (i) 2,097,474 shares 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, (ii) 200,000 restricted shares of Common Stock awarded by us to Mr. Strydom on November 15, 2022, which vest over two years, and (iii) 125,139 shares of Common Stock issuable upon exercise of options held by Dr. Strydom within 60 days of April 26, 2024.
- (8) Consists of 93,458 restricted shares of Common Stock awarded by us to Mr. Gorley, which vest over two years commencing effective October 23, 2023.
- (9) Consists of (i) 454,167 shares of Common Stock held by Dr. Moore, (ii) 200,000 restricted shares of Common Stock awarded by us to Dr. Moore on November 15, 2022, which vest over two years, (iii) 200,000 Shares of Common Stock awarded by us to Dr. Moore on August 16, 2023, and (iv) 96,000 shares of Common Stock issuable upon exercise of options held by Dr. Moore exercisable within 60 days of April 26, 2024.
- (10) Consists of (i) 294,844 shares of Common Stock held by Mr. Wider, (ii) 200,000 restricted shares of Common Stock awarded by us to Mr. Wider on November 15, 2022, which vest over two years, and (iii) 96,000 shares of Common Stock issuable upon exercise of options held by Dr. Wider exercisable within 60 days of April 26, 2024.
- (11) Includes the shares described in notes 5, 6, 7, 8, 9 and 10 above.

Securities Authorized for Issuance under Equity Compensation Plans

The following table gives information as of December 31, 2023 about shares of our common stock that may be issued upon the exercise of options under our existing equity compensation plans:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	2,766,000(1)	\$ 1.91(2)	488,606(3)
Equity compensation plans not approved by security holders	—	—	—
Total	2,766,000	\$ 1.91	488,606

- (1) Represents 3,151,000 shares of common stock issuable upon the exercise of outstanding stock options that will entitle the holder to one share of common stock for each unit that vests over the holder’s vesting period.
- (2) The weighted-average exercise price is calculated based solely on outstanding stock options and does not include outstanding restricted stock units, which do not have an exercise price.
- (3) Consists of shares of common stock that remain available for future issuance under the Company’s 2022 Equity Incentive Plan (2022 Plan). The 2022 Plan provides for annual increases in the number of shares available for issuance under the 2022 Plan on the first day of each fiscal year beginning in 2023, equal to the lesser of: (i) 5% of the number of shares of common stock issued and outstanding on the immediately preceding December 31, and (ii) an amount determined by our board of directors. Accordingly, on January 1, 2024, the number of shares available under the 2022 Plan increased by 2,446,164 shares.

Item 13. Certain Relationships and Related Transactions and Director Independence

Board Independence

Our common stock is listed on the Nasdaq Capital Market. Under the rules of the Nasdaq Capital Market, independent directors must comprise a majority of a listed company’s board of directors. In addition, the rules of the Nasdaq Capital Market require that, subject to specified exceptions, each member of a listed company’s audit, compensation and nominating and corporate governance committees be independent.

Audit committee members and compensation committee members must also satisfy the independence criteria set forth in Rule 10A-3 and Rule 10C-1, respectively, under the Securities Exchange Act of 1934, as amended (“Exchange Act”). Under the rules of the Nasdaq Global Select Market, a director will only qualify as an “independent director” if, in the opinion of that company’s board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

To be considered independent for purposes of Rule 10A-3 and under the rules of Nasdaq, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (1) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

To be considered independent for purposes of Rule 10C-1 and under the rules of Nasdaq, the board of directors must affirmatively determine that each member of the compensation committee is independent, including a consideration of all factors specifically relevant to determining whether the director has a relationship to the company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: (i) the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by the company to such director and (ii) whether such director is affiliated with the company, a subsidiary of the company or an affiliate of a subsidiary of the company.

Our board of directors has determined that each of the current non-employee directors, Michael Gorley, Ph.D., Duncan Moore, Ph.D., Robert Ryan and Todd Wider, M.D., are independent directors. In making this determination, our board of directors applied the standards set forth under Rule 10A-3 of the Exchange Act and related SEC and Nasdaq rules. 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 families. Our board of directors also determined that our former director, Joshua Donfeld, who stepped down from the board of directors effective as of January 12, 2024 and was replaced by Mr. Ryan, was an independent director under these standards. Another of our former directors, Sergey Vasnetsov, stepped down from the board of directors effective as of October 19, 2023 and was replaced by Professor Gorley, was a consultant of the Company and Mr. Vasnetsov continues to serve in this position.

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 our board of directors for 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.

Policies and Procedures for Related Party Transactions

Our board of directors has adopted a written related person transaction policy setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy covers, 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.

Certain Relationships and Related Transactions

Other than the compensation agreements and other arrangements described in the "Executive Compensation" section of this Annual Report on Form 10-K/A and the transactions described below, since January 1, 2022, 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 served as Executive Chairperson and Chief Executive Officer, of Klydon. Dr Ronander and Dr Strydom were 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.

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 Molybdenum 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). As of June 30, 2023 and December 31, 2022, approximately \$7,233,000 had been paid under this contract and recorded as construction in progress within property and equipment.

Klydon performed a portion of the services required under the Turnkey Contract; however, services were incomplete and many of the services were not completed within the time frame required. As a result, Klydon and ASP South Africa entered into an Acknowledgement of Debt Agreement dated November 30, 2022, whereby Klydon (i) agreed to pledge its assets (the “Pledged Assets”) to ASP South Africa to secure its performance of the Turnkey Contract by December 31, 2022, and (ii) acknowledged that ASP South Africa would suffer damages in the amount of \$6,050,000 (“Damage Amount”) should it fail to perform. Under the Acknowledgement of Debt Agreement, the Pledged Assets would serve as collateral for Klydon’s obligation to pay the Damage Amount should Klydon fail to perform. In connection therewith, also on November 30, 2022, ASP South Africa and Klydon entered into a Deed of Security Agreement whereby, if Klydon failed to complete its obligations under the Turnkey Contract by December 31, 2022, all of Klydon’s rights of any nature to and interests of any nature in the Pledged Assets would be transferred to ASP South Africa. Klydon failed to complete its obligations under the Turnkey Contract by December 31, 2022, however, the Company did not perfect its interests in the assets until April 4, 2023.

Acknowledgement of Debt Agreement. On April 4, 2023, the Company perfected its interest under the Acknowledgement of Debt Agreement, pursuant to which the Company acquired certain intellectual property from Klydon (“Klydon Settlement”). In addition, the Company acquired Klydon’s interest in four entities which are inactive and in the process of being dissolved. In conjunction with the Klydon Settlement, the Company recorded an increase to additional paid-in capital for the settlement of all liabilities owed to Klydon at the time of settlement totaling \$626,223.

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 \$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 October 27, 2021. One of our former 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.

On December 12, 2022, the Company entered into a second amendment (the "Amended Advisory Agreement") to the Advisory Agreement with ChemBridges LLC dated October 27, 2021. Under the terms of the Amended Advisory Agreement, ChemBridges LLC was eligible to receive up to one and a half percent (1.5%) of the number of shares of Common Stock outstanding as of the Company's immediately preceding fiscal year. The Company agreed to grant shares on March 1 of each year and vest quarterly over a twelve (12) month period. The Company and ChemBridges LLC subsequently agreed, effective January 1, 2024, to terminate the Company's obligation to pay ChemBridges LLC 1.5% of the number of shares of Common Stock outstanding as of the Company's immediately preceding fiscal year. Effective January 1, 2024, the Company and ChemBridges LLC entered into a new Advisory Agreement, with a term of 24 months, for advisory services on strategy, M&A, R&D, organic growth, operational optimization, commercial excellence, investor relations, and corporate and business communication, and agreed to issue 200,000 shares of restricted stock subject to vesting in four equal semi-annual installments.

Item 14. Principal Accounting Fees and Services

Independent Registered Public Accountants' Fees

Our audit committee is responsible for the audit fee negotiations associated with the Company's retention of EisnerAmper LLP ("EisnerAmper") as the independent registered public accounting firm retained to audit the Company's financial statements. The following table is a summary of fees billed to the Company by EisnerAmper for professional services rendered for the fiscal years ended December 31, 2023 and 2022.

	<u>2023</u>	<u>2022</u>
Audit Fees(1)	\$ 252,000	\$ 243,607
Audit Related Fees	—	—
Tax Fees(2)	—	—
All Other Fees	—	—
Total	<u>\$ 252,000</u>	<u>\$ 243,607</u>

- (1) Audit fees include audit, reviews, and work related to the filing of Form S-1, including issuances of consents and comfort letter.
- (2) Tax fees are related to tax compliance and advisory services.

Pre-Approval Policies and Procedures

Our audit committee has established a policy that all audit and permissible non-audit services provided by our independent registered public accounting firm will be pre-approved by the audit committee, and all such services were pre-approved in accordance with this policy during the fiscal years ended December 31, 2023 and 2022. These services may include audit services, audit-related services, tax services and other services. The audit committee considers whether the provision of each non-audit service is compatible with maintaining the independence of our auditors. Pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. Our independent registered public accounting firm and management are required to periodically report to the audit committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date.

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed or furnished as part of this Form 10K/A:

(a) Financial Statements

The information concerning our consolidated financial statements and Report of Independent Registered Public Accounting Firm (PCAOB ID 274; Iselin, New Jersey) required by this Item is incorporated by reference herein to Item 8 of the Original Filing, entitled “Financial Statements and Supplementary Data.”

(b) Financial Statement Schedules

All schedules have been omitted because the required information is not present or not present in amounts sufficient to require submission of the schedules, or because the information required is included in the Financial Statements or notes thereto.

(c) Exhibits

(1) Exhibits filed as part of this Form 10-K/A:

Exhibit Number	Description of Document
31.3*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.4*	Certification of Principal Accounting Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

* Filed herewith.

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(1) Exhibits filed, furnished, or incorporated by reference with the Original Filing and this Form 10-K/A:

Exhibit Number	Description of Document
3.1	Amended and Restated Certificate of Incorporation.
3.2	Amended and Restated Bylaws.
4.1	Description of Securities Registered Under Section 12 of the Securities Exchange Act of 1934.
4.2	Common Stock Purchase Warrant dated March 17, 2023.
4.3	Placement Agent Common Stock Purchase Warrant dated March 17, 2023.
10.1+	ASP Isotopes Inc. 2021 Stock Incentive Plan, as amended, and form of award agreements thereunder (incorporated by reference to Exhibit 10.1 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).
10.2+	ASP Isotopes Inc. 2022 Equity Incentive Plan and form of award agreements thereunder (incorporated by reference to Exhibit 10.2 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).
10.3+	Performance Share Award Grant Notice and Performance Share Award Agreement with Paul Mann, dated October 4, 2021, as amended (incorporated by reference to Exhibit 10.3 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).
10.4+	Form of Indemnification Agreement between the registrant and each of its directors and executive officers (incorporated by reference to Exhibit 10.4 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).
10.5+	Form of Director Agreement (incorporated by reference to Exhibit 10.5 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).
10.6+	Executive Employment Agreement by and between the registrant and Paul Mann, dated October 4, 2021 (incorporated by reference to Exhibit 10.6 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).
10.7+	Executive Employment Agreement by and between ASP Isotopes Guernsey Limited and Hendrik Strydom, dated January 19, 2022 (incorporated by reference to Exhibit 10.7 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).

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<u>10.8+</u>	<u>Executive Employment Agreement by and between ASP Isotopes Guernsey Limited and Robert Ainscow, dated October 4, 2021, as amended (incorporated by reference to Exhibit 10.8 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.9</u>	<u>Advisory Agreement by and between the registrant and ChemBridges LLC, dated October 27, 2021, as amended (incorporated by reference to Exhibit 10.9 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.10</u>	<u>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 (incorporated by reference to Exhibit 10.10 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.11</u>	<u>License Agreement between ASP Isotopes South Africa (Proprietary) Limited and Klydon (Proprietary) Limited dated January 25, 2021 (incorporated by reference to Exhibit 10.11 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.12</u>	<u>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 (incorporated by reference to Exhibit 10.12 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.13</u>	<u>Letter Agreements between the registrant and Dr Einar Ronander and Dr Hendrik Strydom, dated January 2021 (incorporated by reference to Exhibit 10.13 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.14</u>	<u>Chief Scientific Adviser Agreement between the registrant and Dr Einar Ronander, dated January 2021 (incorporated by reference to Exhibit 10.14 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.15</u>	<u>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. (incorporated by reference to Exhibit 10.15 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.16</u>	<u>Form of Subscription Agreement (incorporated by reference to Exhibit 10.16 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.17</u>	<u>License Agreement between ASP Isotopes UK Ltd and Klydon (Proprietary) Limited dated July 26, 2022 (incorporated by reference to Exhibit 10.17 to the Form S-1/A filed on November 9, 2022 (File No. 333-267392)).</u>
<u>10.18</u>	<u>Amended Advisory Agreement between the registrant and ChemBridges, LLC, dated December 12, 2022.</u>
<u>10.19</u>	<u>Amended Executive Employment Agreement between the registrant and Paul Mann effective December 20, 2022.</u>
<u>10.20</u>	<u>Acknowledgement of Debt Agreement between ASP Isotopes South Africa (Proprietary) Limited and Klydon (Proprietary) Limited dated November 30, 2022</u>
<u>10.21</u>	<u>Deed of Security Agreement between ASP Isotopes South Africa (Proprietary) Limited and Klydon (Proprietary) Limited dated November 30, 2022</u>
<u>10.22</u>	<u>Securities Purchase Agreement dated March 14, 2023 (private placement of shares and warrants).</u>

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<u>10.23</u>	<u>Registration Rights Agreement dated March 14, 2023 (private placement of shares and warrants).</u>
<u>10.24</u>	<u>Release Agreement, dated March 23, 2023 between Revere Securities LLC and ASP Isotopes Inc.</u>
<u>10.25</u>	<u>Form of Securities Purchase Agreement by and between ASP Isotopes Inc. and the purchasers named therein (October 2023 private placement of shares).</u>
<u>10.26</u>	<u>Form of Registration Rights Agreement by and between ASP Isotopes Inc. and the purchasers named therein (October 2023 private placement of shares).</u>
<u>10.27</u>	<u>Share Purchase Agreement, dated October 30, 2023, by and between ASP Isotopes Inc., as purchaser, and Nucleonics Imaging Proprietary Limited, as seller, relating to the purchase and sale of ordinary shares of Pet Labs Pharmaceuticals Proprietary Limited.</u>
<u>10.28</u>	<u>Convertible Note Purchase Agreement (including Form of Convertible Promissory QLE Note), dated as of February 29, 2024, by and among Quantum Leap Energy LLC and the Purchasers listed therein.</u>
<u>10.29</u>	<u>Registration Rights Agreement, dated as of February 29, 2024, by and among Quantum Leap Energy LLC and the Purchasers listed therein.</u>
<u>10.30+</u>	<u>Quantum Leap Energy LLC 2024 Equity Incentive Plan.</u>
<u>21.1</u>	<u>List of Subsidiaries of the Registrant</u>
<u>23.1</u>	<u>Consent of EisnerAmper LLP, independent registered public accounting firm.</u>
<u>24.1</u>	<u>Power of Attorney (included as part of the signature page to this report).</u>
<u>31.1</u>	<u>Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
<u>31.2</u>	<u>Certification of Principal Accounting Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
<u>32.1</u>	<u>Certification of Principal Executive Officer and Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
<u>97.1</u>	<u>Policy Relating to Recovery of Erroneously Awarded Compensation, effective October 2, 2023.</u>

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99.1	License Agreement, dated as of February 16, 2024, among ASP Isotopes UK Limited, as licensor, and Quantum Leap Energy LLC and Quantum Leap Energy Limited, as licensee.
99.2	EPC Services Framework Agreement, dated as of February 16, 2024, between ASP Isotopes Inc. and Quantum Leap Energy LLC.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.

** Furnished herewith.

+ Management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 29th day of April, 2024.

ASP Isotopes Inc.

By/s/ *Paul E. Mann* _____

Paul E. Mann
Chief Executive Officer and
Executive Chairman

CERTIFICATIONS UNDER SECTION 302

I, Paul Mann, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of ASP Isotopes Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 29, 2024

/s/ Paul Mann
Paul Mann
Chief Executive Officer (principal executive officer)

CERTIFICATIONS UNDER SECTION 302

I, Robert Ainscow, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of ASP Isotopes Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 29, 2024

/s/ Robert Ainscow
Robert Ainscow
Chief Financial Officer
(principal financial officer and principal accounting officer)