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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **June 4, 2025**

ASP Isotopes Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-41555**	**87-2618235**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

601 Pennsylvania Avenue NW **South Building, Suite 900** **Washington, DC**	**20004**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(202) 756-2245**

Not Applicable
(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01	**ASPI**	**The Nasdaq Stock Market LLC**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

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

Item 8.01. Other Events.

On June 4, 2025, ASP Isotopes Inc. (the "Company") issued a press release announcing that the Company has entered into a supply agreement with Isotopia Molecular Imaging Ltd. related to the supply of enriched Gadolinium-160. Also on June 4, 2025, the Company issued a press release announcing that the Company will host an investor access event in South Africa from June 16-18, 2025. A copy of each of the press releases is attached to this Current Report on Form 8-K as Exhibits 99.1 and 99.2 and are incorporated herein by reference, other than the fifth and sixth paragraphs of the press release attached as Exhibit 99.1.

Item 9.01. Financial Statements and Exhibits.

Exhibit No.	Description
99.1	Press Release, dated June 4, 2025, of ASP Isotopes Inc. announcing supply agreement with Isotopia Molecular Imaging Ltd. for enriched Gadolinium-160.
99.2	Press Release, dated June 4, 2025, of ASP Isotopes Inc. announcing investor access event in South Africa from June 16-18, 2025.
104	Cover Page Interactive Date File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ASP ISOTOPES INC.

Date: June 4, 2025

By: */s/ Paul Mann*
Name: Paul Mann
Title: Chief Executive Officer

ASP Isotopes and Isotopia Announce Supply Agreement for Gadolinium-160 to Accelerate Terbium-161 Production for Advanced Cancer Therapies

- Gadolinium-160 is a critical precursor isotope for producing Terbium-161, an emerging medical isotope with significant potential in targeted radiotherapies.

- Supply agreement is for four years' supply of enriched Gd-160, commencing in 2026, with an expected minimum contract value of $1 million per annum.

Washington, D.C., June 4, 2025 (GLOBE NEWSWIRE) -- ASP Isotopes Inc. NASDAQ: ASPI ("ASP Isotopes" or the "Company"), an advanced materials company dedicated to the development of technology and processes for the production of isotopes for use in multiple industries, today announced that it has recently entered into a supply agreement with Isotopia Molecular Imaging Ltd. related to the supply of enriched Gadolinium-160 (Gd-160), a critical precursor isotope for producing Terbium-161 (Tb-161), an emerging medical isotope with significant potential in targeted radiotherapeutics.

This agreement addresses longstanding supply challenges for Gd-160, enabling Isotopia to advance Tb-161-based therapies for prostate cancer, neuroendocrine tumours, and other malignancies.

Under the agreement, ASP Isotopes will leverage its proprietary Quantum Enrichment technology to provide Isotopia with enriched Gd-160, a stable isotope essential for manufacturing Tb-161. The supply agreement is for four years' supply, commencing in 2026, with an expected minimum contract value of $1 million per annum.

The collaboration combines ASP Isotopes' expertise in large-scale isotope enrichment—previously demonstrated through its production of Ytterbium-176 (Yb-176)—with Isotopia's proven capabilities in commercial-scale medical isotope production. Isotopia has consistently manufactured Lutetium-177 (Lu-177) and maintained weekly Tb-161 production for its clinical trials over the past two years.

Paul Mann, CEO of ASP Isotopes, emphasized the agreement's significance: "*By supplying Gd-160, we are eliminating a major bottleneck in the development of Tb-161 therapies. Our investment in enrichment technology positions us to support the radiopharmaceutical industry's growing demand for stable isotopes. This partnership accelerates the path to clinical adoption of Tb-161, which could redefine cancer treatment paradigms.*"

Dr. Eli Shalom, CEO of Isotopia, highlighted Tb-161's therapeutic advantages: "*Tb-161's dual mechanism of action, including Auger electron emissions, enables precise targeting of micro-metastases while minimizing damage to healthy tissues. This partnership ensures a reliable Gd-160 supply chain, allowing us to scale production and advance our Tb-161-labeled drug candidates toward commercialization. We produce in our site in Israel and shortly the production will start in our second site in Indianapolis in the US.*"

Tb-161's Auger electrons induce double-strand DNA breaks in cancer cells, offering potential advantages over Lu-177 and alpha-emitting isotopes. This precision aligns with the oncology field's shift toward targeted radiotherapeutics, which improve efficacy and reduce side effects. The agreement comes as global interest in radiopharmaceuticals surges, driven by their ability to deliver localized radiation therapy via tumour-seeking molecules.

It is expected that Gd-160 will be enriched using the Company's Quantum Enrichment process, a novel laser-based approach to enriching isotopes. The Gd-160 plant will be part of a large Quantum plant that the Company is in the process of designing and constructing. Additional isotopes that are expected to be enriched in this large-scale laser facility include Nickel-64, Zinc-68, Ytterbium-176, Barium-137, Ytterbium-171 and Lithium 6/7.

This partnership positions both companies at the forefront of the radiopharmaceutical revolution, with the potential to expand treatment options for cancer patients worldwide. The Company is in discussions with other customers who require Gd-160 and expects to sign additional orders during 2025.

About ASP Isotopes Inc.

ASP Isotopes Inc. is a development stage advanced materials company dedicated to the development of technology and processes to produce isotopes for use in multiple industries. The Company employs proprietary technology, the Aerodynamic Separation Process ("ASP technology"). The Company's initial focus is on producing and commercializing highly enriched isotopes for the healthcare and technology industries. The Company also plans to enrich isotopes for the nuclear energy sector using Quantum Enrichment technology that the Company is developing. The Company has isotope enrichment facilities in Pretoria, South Africa, dedicated to the enrichment of isotopes of elements with a low atomic mass (light isotopes).

There is a growing demand for isotopes such as Silicon-28, which will enable quantum computing, and Molybdenum-100, Molybdenum-98, Zinc-68, Ytterbium-176, and Nickel-64 for new, emerging healthcare applications, as well as Chlorine-37, Lithium-6, and Uranium-235 for green energy applications. The ASP Technology (Aerodynamic Separation Process) is ideal for enriching low and heavy atomic mass molecules. For more information, please visit www.aspisotopes.com.

About Isotopia Molecular Imaging Ltd.

Isotopia is a global leader in medical isotope production, with facilities in Israel, Europe, and the U.S. Its integrated platform includes cyclotrons, Lu-177 and Tb-161 production sites, and sterile manufacturing capabilities. The company collaborates with researchers and clinicians to develop novel radiopharmaceuticals for diagnostics and targeted therapy.

Forward Looking Statements

This press release contains "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Forward-looking statements can be identified by words such as "believes," "plans," "anticipates," "expects," "estimates," "projects," "will," "may," "might," and words of a similar nature. Examples of forward-looking statements include, among others but are not limited to, statements relating to the commencement of supply of isotopes to customers and the application of new technology for the enrichment of isotopes, the planned construction of additional isotope enrichment facilities, and statements we make regarding expected operating results, such as future revenues and prospects from the potential commercialization of isotopes, future performance under contracts, and our strategies for product development, engaging with potential customers, market position, and financial results. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict, many of which are outside our control. Our actual results, financial condition, and events may differ materially from those indicated in the forward-looking statements based upon a number of factors. Forward-looking statements are not a guarantee of future performance or developments. You are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. Therefore, you should not rely on any of these forward-looking statements. There are many important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements, including: the failure to obtain necessary regulatory and shareholder approvals for the proposed acquisition of Renergen; disruption from the proposed acquisition of Renergen making it more difficult to maintain business and operational relationships; significant transaction costs and unknown liabilities related to the proposed acquisition of Renergen; litigation or regulatory actions related to the proposed acquisition of Renergen; the outcomes of various strategies and projects undertaken by the Company; the potential impact of laws or government regulations or policies in South Africa, the United Kingdom or elsewhere; our reliance on the efforts of third parties; our ability to complete the proposed the construction and commissioning of our enrichment plant(s) or to commercialize isotopes using the ASP technology or the Quantum Enrichment Process; our ability to obtain regulatory approvals for the production and distribution of isotopes; the financial terms of any current and future commercial arrangements; our ability to complete certain transactions and realize anticipated benefits from acquisitions and contracts; dependence on our Intellectual Property (IP) rights and certain IP rights of third parties; the competitive nature of our industry; and the factors disclosed in Part I, Item 1A. "Risk Factors" of the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and any amendments thereto and in the company's subsequent reports and filings with the U.S. Securities and Exchange Commission. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise. No information in this press release should be interpreted as an indication of future success, revenues, results of operation, or stock price. All forward-looking statements herein are qualified by reference to the cautionary statements set forth herein and should not be relied upon.

Contacts

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Telephone: 561-709-3043

EXHIBIT 99.2

ASP Isotopes Inc. to host Investor Access Event in South Africa from June 16-18, 2025

Washington, D.C., June 4, 2025 (GLOBE NEWSWIRE) -- ASP Isotopes Inc. NASDAQ: ASPI ("ASP Isotopes" or the "Company"), an advanced materials company dedicated to the development of technology and processes for the production of isotopes for use in multiple industries, today announced that it will host an Investor Access Event in South Africa from June 16-18, 2025.

****There is also the possibility of adding an extra day to the trip and visiting the Renergen Virginia Gas Project on June 19th – please let us know if you are also interested in attending that day too (subject to availability)****

All investors are invited to request a registration to attend the Investor Access Event.

ASP Isotopes values transparency and open communication with all stakeholders and counterparties. During 2024, the Company welcomed over 60 investors and corporate clients to its facilities in South Africa, and has already hosted a highly successful event for Investors in January 2025 with 27 investors from 3 continents.

The timing of the event for investors departing from the USA allows for the following schedule:

Sun, June 15 (evening)	Depart USA
Mon, June 16 (evening)	Arrive in South Africa
Tue, June 17 (all day)	Scientific Sessions and Plant Tours
Wed, June 18 (all day)	Scientific Sessions and Plant Tours
Thu, June 19 (evening)	Depart South Africa
Fri, June 20 (morning)	Arrive in USA

Stakeholders wishing to attend should email Viktor Petkov at vpetkov@aspisotopes.com as soon as possible to complete the registration process and receive confirmation of your place. Attendees will be required to submit a copy of their passport **by June 7, 2025** in order to obtain the required security clearances to visit the Company's secure facilities. For citizens of the USA, UK and Europe, security clearance is typically an expedient process. For other nationalities (including dual nationalities), a longer period of time may be required. Registrations for the event are subject to availability and to acceptance by the Company at its absolute discretion.

As of April 2025, the Company has announced that it is already commercially enriching Carbon-14 and Silicon-28 with the Ytterbium-176 plant producing commercial samples.

This trip will allow you see firsthand the progress being made on all ASP's enrichment production plants, as well as hear future plans and strategy in for 2025/2026. You will have a chance to meet the management and scientific team behind these innovative technologies. There will be extensive presentations and opportunities for Q&A.

Participants of the Investor Access Event will be able to visit all three facilities as well as PET Labs, the Company's radioisotope production centre and Pelindaba, the center for South Africa Nuclear Energy Corporation (Necsa).

ASP Isotopes looks forward to welcoming as many stakeholders as possible for them to see firsthand all our facilities and hear directly from the Scientific and Engineering Teams.

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Therefore, you should not rely on any of these forward-looking statements. There are many important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements, including: the failure to obtain necessary regulatory and shareholder approvals for the proposed acquisition of Renergen; disruption from the proposed acquisition of Renergen making it more difficult to maintain business and operational relationships; significant transaction costs and unknown liabilities related to the proposed acquisition of Renergen; litigation or regulatory actions related to the proposed acquisition of Renergen; the outcomes of various strategies and projects undertaken by the Company; the potential impact of laws or government regulations or policies in South Africa, the United Kingdom or elsewhere; our reliance on the efforts of third parties; our ability to complete the construction and commissioning of our enrichment plants or to commercialize isotopes using the ASP technology or the Quantum Enrichment Process; our ability to obtain regulatory approvals for the production and distribution of isotopes; the financial terms of any current and future commercial arrangements; our ability to complete certain transactions and realize anticipated benefits from acquisitions and contracts; dependence on our Intellectual Property (IP) rights, certain IP rights of third parties; the competitive nature of our industry; and the factors disclosed in Part I, Item 1A. "Risk Factors" of the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and any amendments thereto and in the company's subsequent reports and filings with the U.S. Securities and Exchange Commission. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise. This press release includes market and industry data and forecasts that we obtained from internal research, publicly available information and industry publications and surveys. Industry publications and surveys generally state that the information contained therein has been obtained from sources believed to be reliable. Unless otherwise noted, statements as to our potential market position relative to other companies are approximated and based on third-party data and internal analysis and estimates as of the date of this press release. We have not independently verified this information, and it could prove inaccurate. Industry and market data could be wrong because of the method by which sources obtained their data and because information cannot always be verified with certainty due to the limits on the availability and reliability of raw data, the voluntary nature of the data-gathering process and other limitations and uncertainties. In addition, we do not know all of the assumptions regarding general economic conditions or growth that were used in preparing the information and forecasts from sources cited herein. No information in this press release should be interpreted as an indication of future success, revenues, results of operation, or stock price. All forward-looking statements herein are qualified by reference to the cautionary statements set forth herein and should not be relied upon.

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