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

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of June 2024

Commission File Number: **001-40488**

Molecular Partners AG
(Translation of registrant's name into English)

Wagistrasse 14
8952 Zurich-Schlieren
Switzerland
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F [X] Form 40-F [ ]

On June 11, 2024, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated June 11, 2024

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, thereunto duly authorized.

Molecular Partners AG
(Registrant)

Date: June 11, 2024

/s/ PATRICK AMSTUTZ
Patrick Amstutz
Chief Executive Officer

EXHIBIT 99.1

Molecular Partners and Orano Med Share Positive Preclinical Data of their DLL3-Targeting Radio-DARPin Therapy (RDT) Candidate MP0712 at SNMMI 2024

- MP0712, a ^{212}Pb-Radio-DARPin targeting DLL3, as first candidate of Molecular Partners' RDT platform in development in partnership with Orano Med
- Positive tumor to kidney ratio and biodistribution, favorable antitumor activity and safety profile
- First-in-human study in planning with initial data expected in 2025
- RDT platform expanding with portfolio of additional targets under evaluation

ZURICH-SCHLIEREN, Switzerland and CONCORD, Mass. and PARIS, June 11, 2024 (GLOBE NEWSWIRE) -- **Ad hoc announcement pursuant to Art. 53 LR** Molecular Partners AG (SIX: MOLN; NASDAQ: MOLN), a clinical-stage biotech company developing a new class of custom-built protein drugs known as DARPin therapeutics and Orano Med, a clinical stage radiopharmaceutical company developing targeted alpha therapies with lead-212 (^{212}Pb), today announced the debut of their lead Radio-DARPin therapy (RDT) candidate MP0712, targeting DLL3, in an oral presentation. The data presented today provide strong support for MP0712's clinical development in small-cell lung cancer (SCLC) and other DLL3^{+} neuroendocrine tumors. MP0712 features ^{212}Pb as a potent therapeutic payload. The data were presented today at the Society of Nuclear Medicine and Molecular Imaging (SNMMI) 2024 Annual Meeting taking place June 8-11 in Toronto, Canada.

"Three years ago, we started our venture into the radiotherapy space. We have made tremendous progress with our Radio-DARPins and are proud to present MP0712, our first RDT development candidate targeting DLL3 delivering and ^{212}Pb to kill the tumor, in partnership with Orano Med," said Patrick Amstutz, Ph.D., Molecular Partners' Chief Executive Officer. "We have made key learnings how to reduce kidney accumulation and increase tumor uptake. We are now exploiting the long-known DARPin advantages to a full pipeline of candidates addressing high medical need. Kudos to both the Orano Med and Molecular Partners team for advancing the science to make this happen."

"We are extremely excited with the first preclinical results of the MP0712 program, which confirm the potential of the combination between Molecular Partners' targeting technology and ^{212}Pb, an isotope perfectly suited for targeted alpha therapy. We eagerly anticipate advancing the drug's development and initiating clinical trials to provide solutions for patients with unmet medical needs," said Julien Dodet, CEO of Orano Med.

MP0712 is the first high-affinity DLL3-targeting RDT combining the advantages of DARPins as small protein-based delivery vectors and the short-lived alpha particle-emitting radioisotope ^{212}Pb. DLL3 is expressed in >85% of SCLC patients and in other neuroendocrine tumors, while its expression in healthy tissues is low, making it a priority target for radiopharmaceutical therapy. SCLC is an aggressive form of lung cancer, with a poor five-year survival prognosis and a high unmet need for patients.

The preclinical package presented at SNMMI includes*in vivo* data demonstrating strong and homogeneous tumor uptake of ^{212}Pb-DLL3 RDT, as well as significant and durable inhibition of tumor growth at clinically-relevant doses. The safety results seen across the tested dosing levels in mice suggest a favorable safety profile and potential for clinical use. ^{212}Pb-DLL3 RDT candidates were engineered by tuning their biophysical properties to achieve an optimal safety/antitumor activity profile *in vivo*. The selected lead candidate, MP0712, demonstrated a promising biodistribution profile in mouse xenograft tumor models, with close to 60% of injected dose detectable in the tumor and encouraging tumor to kidney ratios over two. The replicable DARPin learnings from the development of MP0712, as well as additional platform improvements, are being taken forward to the broader RDT portfolio.

The intrinsic properties of DARPins, such as small size, high affinity and selectivity, and a broad range of potential targets, make them ideal vector candidates for radiopharmaceutical therapeutics. Historically, small protein-based vectors faced challenges with kidney accumulation and toxicity, as well as suboptimal tumor uptake. Molecular Partners has evolved its RDT platform to address these limitations with its half-life extension technologies and surface engineering approaches, while preserving the advantages of the small protein format. In addition, Molecular Partners' DARPin candidates have been clinically validated with over 2500 patients treated worldwide and multiple DARPin mechanisms have been demonstrated as biologically active in for different indications, contributing to validation of the drug class and Molecular Partners as leader in the field of DARPin engineering and development.

Details of the presentation summarizing the MP0712 preclinical data at the SNMMI 2024 Annual Meeting can be found below. The presentation will be made available on Molecular Partners' website after the presentation.

Presentation Title: Lead-212 Radio-DARPin Therapeutic (RDT) targeting delta-like ligand 3 (DLL3) shows promising preclinical antitumor efficacy and tolerability in small cell lung cancer (SCLC)
Session: IS09 Integrated Session: Radionuclides (CMIIT/RPSC);
Timing: 11 June 2024; 8:00–9:15 am EDT

About Molecular Partners AG

Molecular Partners AG is a clinical-stage biotech company pioneering the design and development of DARPin therapeutics for medical challenges other drug modalities cannot readily address. The Company has programs in various stages of pre-clinical and clinical development, with oncology as its main focus. Molecular Partners leverages the advantages of DARPins to provide unique solutions to patients through its proprietary programs as well as through partnerships with leading pharmaceutical companies, including Novartis and Orano Med. Molecular Partners was founded in 2004 and has offices in both Zurich, Switzerland and Concord, MA, USA. For more information, visit www.molecularpartners.com and find us on LinkedIn and Twitter/X @MolecularPrtnrs.

About Orano Med SAS
Orano Med is a clinical-stage biotechnology company which develops a new generation of targeted therapies against cancer using the unique properties of lead-212 (^{212}Pb), a rare alpha-emitting radioisotope and one of the more potent therapeutic payloads against cancer cells known as Targeted Alpha-Emitter Therapy (TAT). The company develops several treatments using ^{212}Pb combined with various targeting agents. Orano Med has^{212}Pb manufacturing facilities, laboratories, and R&D centers in France and in the US and is currently investing to further expand its GMP-manufacturing capacities for ^{212}Pb radiolabeled pharmaceuticals in North America and Europe. For more information, please visit: www.oranomed.com.

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Cautionary Note Regarding Forward-Looking Statements
Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation: implied and express statements regarding the clinical development of Molecular Partners' current or future product candidates; expectations regarding timing for reporting data from ongoing clinical trials or the initiation of future clinical trials; the potential therapeutic and clinical benefits of Molecular Partners' product candidates and its RDT and Switch-DARPin platforms; the selection and development of future programs; Molecular Partners' collaboration with Orano Med including the benefits and results that may be achieved through the collaboration; and Molecular Partners' expected business and financial outlook, including anticipated expenses and cash utilization for 2024 and its expectation of its current cash runway. These statements may be identified by words such as "anticipate", "believe", "expect", "guidance", "intend", "may", "plan", "potential", "will", "would" and similar expressions, and are based on Molecular Partners' current beliefs and expectations. These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements. Some of the key factors that could cause actual results to differ from Molecular Partners' expectations include its plans to develop and potentially commercialize its product candidates; Molecular Partners' reliance on third party partners and collaborators over which it may not always have full control; Molecular Partners' ongoing and planned clinical trials and preclinical studies for its product candidates, including the timing of such trials and studies; the risk that the results of preclinical studies and clinical trials may not be predictive of future results in connection with future clinical trials; the timing of and Molecular Partners' ability to obtain and maintain regulatory approvals for its product candidates; the extent of clinical trials potentially required for Molecular Partners' product candidates; the clinical utility and ability to achieve market acceptance of Molecular Partners' product candidates; the potential that Molecular Partners' product candidates may exhibit serious adverse, undesirable or unacceptable side effects; the impact of any health pandemic, macroeconomic factors and other global events on Molecular Partners' preclinical studies, clinical trials or operations, or the operations of third parties on which it relies; Molecular Partners' plans and development of any new indications for its product candidates; Molecular Partners' commercialization, marketing and manufacturing capabilities and strategy; Molecular Partners' intellectual property position; Molecular Partners' ability to identify and in-license additional product candidates; unanticipated factors in addition to the foregoing that may impact Molecular Partners' financial and business projections and guidance; and other risks and uncertainties that are described in the Risk Factors section of Molecular Partners' Annual Report on Form 20-F for the fiscal year ended December 31, 2023, filed with Securities and Exchange Commission (SEC) on March 14, 2024 and other filings Molecular Partners makes with the SEC. These documents are available on the Investors page of Molecular Partners' website at www.molecularpartners.com. Any forward-looking statements speak only as of the date of this press release and are based on information available to Molecular Partners as of the date of this release, and Molecular Partners assumes no obligation to, and does not intend to, update any forward-looking statements, whether as a result of new information, future events or otherwise.