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 December 2025

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 December 7, 2025, 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 December 7, 2025

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: December 7, 2025

/s/ PATRICK AMSTUTZ
Patrick Amstutz
Chief Executive Officer

EXHIBIT 99.1

Molecular Partners Presents Updated Data from Ongoing Phase 1/2a Trial of MP0533 in AML at ASH Annual Meeting

- *Poster outlines clinical benefit with acceptable safety profile across 9 tested dosing regimens*
- *Accelerated step-up dosing and higher dosing frequency is feasible and results in increased exposure*
- *Six of eight responders presented with low bone marrow blast counts at baseline, supporting further investigation in this patient population most likely to benefit from MP0533*

ZURICH-SCHLIEREN, Switzerland and CONCORD, Mass., Dec. 07, 2025 (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 ("Molecular Partners" or the "Company"), has today announced it will present updated data from a Phase 1/2a trial of the multispecific T-cell engager MP0533 in patients with acute myeloid leukemia (AML) in a poster at the 67th American Society of Hematology (ASH) Annual Meeting and Exposition, taking place December 6-9, 2025, in Orlando, Florida.

The poster outlines the latest results of this multicenter, open-label study evaluating MP0533 for the treatment of patients with relapsed/refractory (R/R) AML and myelodysplastic syndrome (MDS)/AML (ClinicalTrials.gov: NCT05673057). Data from cohorts 8 and 9 show that densified MP0533 dosing appears tolerable and leads to markedly improved serum exposure in treatment cycle 1, with encouraging preliminary antitumor activity.

"The results in patients with higher frequency dosing regimens of MP0533 are very encouraging. I am happy to see the clinical benefit of MP0533 in a mutation-agnostic manner in R/R AML patients, in particular those with lower disease burden. The data indicate that MP0533 has the potential to significantly improve treatment options for patients with AML and I support investigating MP0533 in a Phase 2 setting to confirm its safety and activity in earlier lines as consolidation addition to existing backbones," said **Prof. Courtney DiNardo, M.D., Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center**, Houston, Texas, and co-chair of the MP0533 dose escalation review committee (DERC).

As of the data cut-off of September 1, 2025, 54 patients had been treated with MP0533. Eight of 48 evaluable patients achieved a response, with five reaching composite complete responses (3 complete responses, CR, and 2 CR with partial hemotologic recovery) and three reaching morphologic leukemia-free state (MLFS). Six of the 8 responders, and 11 of 14 patients who achieved a reduction in bone marrow blasts of more than 50%, presented with less than 20% bone marrow blast at baseline, indicating that patients with low disease burden are most likely to benefit from MP0533. One patient in cohort 8 has been in complete remission for over a year, and one patient in cohort 9 is on the trial since 4 months. Cohort 10, which aims at reaching the same target dose as cohort 8 while exposing patients to more drug over time, is ongoing with data expected in 2026.

"The Phase 1/2a trial with MP0533 is making good progress, with the densified dosing regimen showing to be feasible, with an acceptable safety profile, and resulting in clinical benefit. The results warrant further exploration of MP0533's potential, both in the R/R and front-line AML settings in combination with standard of care, and several consortia have approached us expressing interest in conducting such studies. We are actively engaging with potential partners and continue our dialogue with key opinion leaders and regulators to shape the next phase of development of our innovative T-cell engager for patients," said **Philippe Legenne, M.D., CMO of Molecular Partners**.

MP0533 is a novel tetra-specific T cell-engaging DARPin designed for selective and broad killing of AML cells in a mutation-agnostic manner. MP0533 simultaneously targets three tumor-associated antigens CD33, CD123, and CD70 on AML cells as well as the immune activator CD3 on T cells. AML cells commonly co-express at least two of the three target antigens, whereas most healthy cells only express one or none. MP0533 binds with increasing avidity as the number of its target antigens present increases, thereby preferentially binding to AML cells over healthy cells. This unique mode of action is designed to enable T cell-mediated killing of AML cells while preserving a therapeutic window that minimizes damage to healthy cells.

Details of the poster presentation:

Title: Phase 1/2 study of MP0533, a tetra-specific T-cell engager (CD33 x CD123 x CD70 x CD3), in patients with relapsed/refractory AML or MDS/AML: Initial results from optimized treatment regimen including densified MP0533 dosing and adapted premedication
Session Name: 616. Acute Myeloid Leukemias: Investigational Drug and Cellular Therapies: Poster II
Session Date: December 7, 2025
Presentation Time & Location: 6:00– 8:00 PM ET; OCCC, West Halls B3–B4
Publication Number: 3419

About DARPin Therapeutics
DARPin (Designed Ankyrin Repeat Protein) therapeutics are a new class of custom-built protein drugs based on natural binding proteins that open new dimensions of multi-functionality and multi-target specificity in drug design. The flexible architecture, intrinsic potential for high affinity and specificity, small size and high stability of DARPins offer benefits to drug design over other currently available protein-based therapeutics. DARPin candidates can be radically simple, with a single DARPin unit acting as the delivery vector to a specific target; or multispecific, with the possibility of engaging more than five targets, and combining multiple and conditional functionalities in a unique DARPin drug candidate. The DARPin platform is designed to be a rapid and cost-effective drug discovery engine, producing drug candidates with optimized properties and high production yields. DARPin therapeutics have been clinically

validated across several therapeutic areas and developed through to the registrational stage.

About Molecular Partners AG
Molecular Partners AG (SIX: MOLN, NASDAQ: MOLN) 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. 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

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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 2025 and its expectation of its current cash runway. These statements may be identified by words such as "aim", "anticipate", "expect", "guidance", "intend", "outlook", "plan", "potential", "will" 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 cause Molecular Partners' actual results to differ from its financial and business projections and guidance; and other risks and uncertainties set forth in Molecular Partners' Annual Report on Form 20-F for the year ended December 31, 2024 and other filings Molecular Partners makes with the SEC from time to time. These documents are available on the Investors page of Molecular Partners' website at www.molecularpartners.com. In addition, this press release contains information relating to interim data as of the relevant data cutoff date, results of which may differ from topline results that may be obtained in the future. 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.