Molecular Partners Provides Updates at 42nd Annual J.P. Morgan Healthcare Conference

January 7, 2024

- *Tetra-specific T-cell engager MP0533 for patients with r/r AML and AML/MDS on track to deliver expanded clinical phase 1/2a data in H1 2024*
- *Progress of Radio-DARPin Therapy (RDT) platform: Improved tumor to kidney uptake ratio enables expansion of RDT pipeline; first data on DLL3 as lead candidate; to be co-developed as ^{212}Pb-based RDT in new partnership with Orano Med*
- *Introduction of first program from the Switch-DARPin platform: the cKIT x CD16a x CD47 Switch-DARPin allows local conditional immune cell activation for targeted killing of hematopoietic stem cells (HSC) as next-generation conditioning for hematopoietic stem cell transplantation (HSCT) in AML and beyond.*

ZURICH-SCHLIEREN, Switzerland and CONCORD, Mass., Jan. 07, 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, today announced it will present a business overview and provide its 2024 outlook at the 42nd Annual J.P. Morgan Healthcare Conference.

Key current program status updates include:

MP0533 (CD33 x CD123 x CD70 x CD3)

- The Phase 1/2a trial of MP0533 continues to enroll patients with relapsed/refractory (r/r) acute myeloid leukemia (AML) or myelodysplastic syndrome (MDS/AML). Enrolment of patients in dosing cohort 5 is complete, and enrolment in cohort 6, projected as a therapeutically active dose, is now ongoing.
- Positive initial data from the first four dosing cohorts indicate acceptable safety and encouraging initial antitumor activity with two responders reported across dosing cohorts 3 and 4. Data were presented at the 65th American Society of Hematology (ASH) Annual Meeting and Exposition in December 2023.

Radio-DARPin Therapy (platform, DLL3)

- The Company has entered a strategic collaboration with Orano Med, a leader in targeted alpha therapies, to co-develop ^{212}Pb-based Radio-DARPin Therapies (RDT) for patients with solid tumors. Molecular Partners' previously disclosed DLL3 program will be the first included in the collaboration. The deal combines the power of DARPins, as a highly differentiated modality for tumor-targeted delivery of radioisotopes, with Orano Med's leading capabilities in alpha emitter technology and supply to further advance the RDT platform and expand Molecular Partner's RDT portfolio.
- Successful progress and optimization of Molecular Partners' RDT platform enables expansion of the RDT pipeline. Both reduction of kidney absorption (Stealth-DARPins) and enhanced tumor uptake via half-life engineering were achieved with DARPins for several targets, including DLL3.
- Molecular Partners continues to progress its RDT platform and portfolio of projects, both in-house and in partnership with Novartis.

Introduction of the first Switch-DARPin (cKIT x CD16a x CD47)

- The multispecific cKIT x CD16a x CD47 Switch-DARPin is the first program of the company's Switch-DARPin platform for targeted and conditional immune cell activation, designed as next-generation conditioning regimen for HSCT in AML and beyond.
  - cKIT is a highly attractive target to eliminate HSCs (and leukemia stem cells, LSCs) as it is critical for stem cell maintenance and renewal.
  - The CD16a DARPin allows engaging NK cells and macrophages to selectively kill HSCs.
  - Conditional blocking of the "don't eat me" signal (CD47) only on HSCs via a Switch-DARPin allows leveraging the power of CD47 inhibition without its associated toxicity.
- Altogether the cKIT x CD16a x CD47 Switch-DARPin is designed to increase long-term disease control post HSCT in AML patients, including those with poor cytogenetic risk profile, by inducing exhaustive killing of cKIT+ HSCs/LSCs, and to present an alternative approach with better safety profile than standard high-intensity conditioning, thereby allowing use of HSCT for more patients with AML.
- The detailed proposed mechanism of action for this Switch-DARPin will be available at www.molecularpartners.com

MP0317 (CD40 x FAP)

- The Company presented positive data from its ongoing MP0317 Phase 1 dose-escalation study at SITC in November 2023, including results from 46 patients with advanced solid tumors.
- The data support a favorable safety profile and provide clinical evidence of MP0317-induced, tumor-targeted CD40 activation and related remodeling of the tumor microenvironment.

The Company reports year-end 2023 unaudited* cash and short-term deposits of CHF ~187 million and maintains its guidance of being funded well into 2026.

The company expects milestones in 2024 to include:

- Data from projected therapeutically active doses of MP0533 from the Phase 1/2a trial, including safety and efficacy, to be presented in H1.
- Lead RDT candidate (DLL3) to be advanced into IND-enabling studies in H1, and nomination of additional targets and lead candidates for the RDT pipeline. Initiation of clinical studies and first-in-human data are expected in 2025.
- Initial data from the first program of the company's Switch-DARPin platform – a cKIT x CD16a x CD47 multispecific DARPin for targeted immune cell activation against HSCs as next-generation conditioning regimen for HSCT in AML patients – to be presented in H1.
- The full dataset from the MP0317 Phase 1 dose-escalation in H1.

J.P. Morgan Presentation Details:

Presenter: Molecular Partners CEO Patrick Amstutz
Time (updated): Wednesday, January 10, 2024, at 10:30 am PST (7:30 pm CET)
Location: San Francisco, CA

A webcast will be accessible on the Molecular Partners website, under the Events tab.

In addition to these updates, Novartis has returned the rights to the ensovibep program, previously under investigation for the treatment of COVID-19, to Molecular Partners. Clinical work on the ensovibep program ended in 2022 and the program remains terminated. The abicipar program, previously under investigation for the treatment of nAMD and formerly licensed to Allergan/Abbvie also remains inactive.

*Unaudited financials. Year-end audited results will be available on March 14, 2024.

About Molecular Partners AG
Molecular Partners AG is a clinical-stage biotech company developing DARPin therapeutics, a new class of custom-built protein drugs designed to address challenges current modalities cannot. The Company has formed partnerships with leading pharmaceutical companies to advance DARPin therapeutics in the areas of oncology and infectious disease and has compounds in various stages of clinical and preclinical development across multiple therapeutic areas. www.molecularpartners.com; Find us on LinkedIn and X - @MolecularPrtnrs

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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, the selection and development of future antiviral or other programs, and Molecular Partners' expected business and financial outlook, including expenses and cash utilization for 2023 and its expectation of its current cash runway. These statements may be identified by words such as "believe", "expect", "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 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; 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, 2022, filed with Securities and Exchange Commission (SEC) on March 9, 2023 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.