Molecular Partners Q3 2024 Interim Management Statement: Multiple Updates Across Portfolio, Radio-DARPin candidate MP0712 preparing for clinical entry, MP0533 Phase 1 on-going

October 31, 2024

Radio-DARPin Therapy (RDT) Candidate MP0712 supported by in vivo *data presented at the European Association of Nuclear Medicine (EANM) Congress; first-in-human start and initial clinical data expected in 2025*

RDT strategic agreement with Orano Med revised and strengthened: both companies to co-develop four ^{212}Pb-based RDT candidates, including MP0712

MP0533 phase 1 dose escalation study continues; update to be presented at the American Society for Hematology Annual Meeting (ASH); protocol being amended to improve treatment exposure

CD3 Switch-DARPin proof-of-mechanism to be presented at the Society for the Immunotherapy of Cancer Annual Meeting (SITC); update on Switch-DARPin MP0621 to be presented at ASH

MP0317 Phase 1 biomarker data presented at the International Cancer Immunotherapy Conference (CICON); additional biomarker data to be shared at SITC

Outlook: Funded into 2027 with cash and short-term time deposits of CHF 143.6 million as of September 30, 2024, Molecular Partners expects total operating expenses of CHF 65-70 million in 2024.

ZURICH-SCHLIEREN, Switzerland and CONCORD, Mass., Oct. 31, 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 ("Molecular Partners" or the "Company"), today announced corporate highlights and unaudited financial results for the third quarter of 2024.

"In the last quarter we continued to execute our plan to bring our first Radio-DARPin program to IND submission, and into the clinics. DLL3 remains a highly interesting target that is gaining significant attention. Our team presented additional preclinical data showing that MP0712 is safe and efficacious in a highly relevant tumor model, with DLL3 expression levels matching those in human tumors," said Patrick Amstutz, Ph.D., Molecular Partners' Chief Executive Officer. "In addition, we strengthened our relationship with our partner Orano Med, ensuring that both parties will have the opportunity to bring two Radio-DARPin products to market, for a total of four. Lastly our recent capital raise allows us additional financial flexibility into 2027 with participation from new, specialized investors and supportive existing investors."

Financial and Business Outlook

For the full year 2024, at constant exchange rates, the Company reiterates its guidance for total expenses of CHF 65–70 million. Approximately CHF 7 million of this will be non-cash effective costs for share-based payments, pension accounting and depreciation. This guidance does not include any potential receipts from R&D collaborators.

With CHF 143.6 million in cash and short-term time deposits and no debt as of September 30, 2024, the Company expects to be funded into 2027, excluding any potential receipts from R&D collaborators.

On October 25, 2024, Molecular Partners announced the pricing of an underwritten offering in the US of 3'642'988 American Depositary Shares (ADSs) representing 3'642'988 ordinary shares at an offering price of USD 5.49 per ADS. The total gross proceeds amount to approximately USD 20 million. The offering included participation from a new investor HBM Healthcare Investments Ltd, which is a leading healthcare investor, as well as multiple existing investors. Leerink Partners and TD Cowen acted as joint bookrunning managers for the offering. LifeSci Capital acted as lead manager for the offering, and Zürcher Kantonalbank (ZKB) served as settlement agent. Molecular Partners currently intends to use the net proceeds from this offering, together with its existing cash and cash equivalents, for development and expansion of its radiopharmaceutical pipeline and platform (Radio-DARPin Therapeutics) and for working capital and other general corporate purposes. Subsequent to the offering, the Company has (proforma) cash and short-term time deposits in the amount of CHF 158 million, with 40,363,095 issued shares.

Research & Development Highlights

MP0712 and Radio-DARPin Therapy (RDT): Preparing for IND submission and clinical entry in 2025

Molecular Partners has leveraged the intrinsic properties of DARPins, such as small size, high affinity and specificity, to engineer Radio-DARPins as ideal vector candidates for radiopharmaceutical therapeutics and to create a Radio-DARPin Therapy (RDT) platform amenable to a broad range of tumor targets. Historically, small protein-based vectors faced challenges with kidney accumulation and toxicity, as well as suboptimal tumor uptake. Molecular Partners' RDT platform addresses these limitations with its half-life extension technologies and surface engineering approaches, while preserving the advantages of the small protein format.

MP0712 is a ^{212}Pb-based Radio-DARPin Therapeutic (RDT) candidate targeting the tumor-associated protein delta-like ligand 3 (DLL3). MP0712 is being co-developed with Orano Med, a clinical stage pioneer of targeted alpha therapies using the lead isotope ^{212}Pb. Molecular Partners and Orano Med anticipate initiating first-in-human studies in 2025, pending regulatory clearance. Initial clinical data of MP0712 is also anticipated in 2025.

In October 2024, Molecular Partners presented new *in vivo* data at the EANM Congress. MP0712 demonstrated high affinity and specificity for DLL3

and a favorable safety profile. DLL3 is a highly relevant target for radiopharmaceutical therapy due to its abundant expression in tumors of patients with small cell lung cancer (present in >85% of tumors) and other aggressive neuroendocrine tumors, while expression in healthy tissues is low. MP0712 led to attractive tumor to kidney (T:K) ratios of >2 in biodistribution studies across several models, and to strong and dose-dependent efficacy in mice bearing established tumors with clinically-relevant levels of DLL3 expression and at a clinically-relevant dose.

On October 22, 2024, Molecular Partners and Orano Med signed a revised and strengthened agreement to co-develop ^{212}Pb-based Radio-DARPin Therapeutics. This revision builds on the original agreement signed in January 2024. Under the revised agreement, both companies will co-develop four Radio-DARPin programs; each company will have the right to commercialize two programs (previously one each). Molecular Partners will hold commercialization rights to the second nominated Radio-DARPin candidate, in addition to rights to the first program MP0712.

In addition to the updates above, Molecular Partners continued to progress its RDT portfolio with projects through a partnership with Novartis, and is evaluating additional targets for RDT programs. An update on the broader RDT portfolio is expected to be shared in the first half of 2025.

MP0533 (multispecific T cell engager)

MP0533, a novel tetra-specific T cell-engaging DARPin, is currently being evaluated in a Phase 1/2a clinical trial for patients with relapsed/refractory acute myeloid leukemia (r/r AML) and myelodysplastic syndrome/AML (MDS/AML) (ClinicalTrials.gov: NCT05673057). The trial is currently enrolling patients in Cohort 8. MP0533's mode of action is designed to preferentially kill AML cells (blasts, leukemic progenitor and stem cells) that express any combination of the three cell surface antigens CD33, CD123, and CD70, while sparing healthy cells, which tend to express only one or none of these targets. The immune activation against the malignant cells is achieved through CD3-mediated T-cell engagement.

As shared in August 2024, MP0533 showed an acceptable tolerability profile with the majority of adverse events reported being infusion-related reactions and cytokine release syndrome. Based on this observed tolerability profile and initial antitumor activity data, and following discussion with treating physicians and key opinion leaders, Molecular Partners is amending the protocol to further increase dosing and improve the exposure profile of MP0533.

Molecular Partners plans to present the next clinical update of the program at the American Society of Hematology (ASH) Annual Meeting in San Diego on December 7–10, 2024, and data following the protocol amendment are expected in 2025.

Switch-DARPin Platform (next-gen immune cell engagers)

The Switch-DARPin platform provides a logic-gated "on/off" function (the "Switch") to multi-specific DARPin candidates leading to target activation only in the presence of defined antigens. The objective is conditional activation of a targeted immune response.

MP0621 is a Switch-DARPin candidate designed to induce killing of hematopoietic stem cells as a next-generation conditioning regimen for HSCT. The *in vivo* proof-of-mechanism data, as presented at EHA 2024, demonstrate that MP0621 could be an efficient next-generation conditioning regimen for autologous HSCT. At present, the non-human primate data do not indicate that MP0621 would serve as a treatment for AML. As Molecular Partners' portfolio strategy prioritizes therapeutic candidates for oncology, MP0621 is being evaluated for partnering. The Company plans to present a preclinical update on MP0621 at ASH 2024.

Proof-of-concept preclinical data on an additional Switch-DARPin candidate, namely a CD3 Switch-DARPin T cell engager for solid tumors, will be presented at SITC 2024 on November 9, 2024. The CD3 Switch-DARPin targets the highly validated immunostimulatory protein CD3 to deliver a T cell-engager (TCE) mechanism with enhanced function via engagement of additional receptors on the surface of T cells. TCEs are a powerful class of immuno-oncology therapies but have faced a range of challenges such as toxicity, poor T cell fitness and immune suppression, particularly in solid tumors. By employing a multi-specific Switch approach, Molecular Partners aims to broaden the therapeutic space for T cell engagers.

MP0317 (localized agonist)
MP0317 is a CD40 agonist designed to activate immune cells specifically within the tumor microenvironment (TME) by anchoring to fibroblast activation protein (FAP) which is expressed in high amounts around tumors. This tumor-localized approach has the potential to deliver greater efficacy with fewer side effects compared to systemic CD40-targeting therapies.

In September 2024, the Company presented details of the transcriptomic analysis from its completed Phase 1 study at CICON 2024. The analysis of patient biopsies pre- and post-treatment with MP0317 showed that this molecule remodels the tumor microenvironment by inducing infiltration of B, plasma, dendritic, and T follicular helper cells.

Molecular Partners plans to share a comprehensive biomarker analysis of its completed Phase 1 study at SITC on November 9, 2024.

The positive Phase 1 data support further clinical evaluation of MP0317 in combination with complementary anticancer therapies and demonstrated the ability of the DARPin design to deliver on a targeted, tumor-localized CD40 activation mechanism. Molecular Partners is in discussion with leading academic centers regarding potential investigator-initiated combination trials.

Expected Financial Calendar

March 6, 2025	Corporate Highlights Q4 2024 and Key Financials for Full Year 2024
April 16, 2025	Annual General Meeting
May 15, 2025	Interim Management Statement Q1 2025

The latest timing of the above events can be viewed on the investor section of the corporate website.

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
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. 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

For further details, please contact:
Seth Lewis, SVP Investor Relations & Strategy
Concord, Massachusetts, U.S.
seth.lewis@molecularpartners.com
Tel: +1 781 420 2361

Laura Jeanbart, PhD, Head of Portfolio Management & Communications
Zurich-Schlieren, Switzerland
laura.jeanbart@molecularpartners.com
Tel: +41 44 575 19 35

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 and the expected use of proceeds from the underwritten offering. These statements may be identified by words such as "aim", "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 impact Molecular Partners' 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, 2023 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.