Molecular Partners to Present Positive Data from Ongoing Phase 1 Trial of MP0317 (FAP X CD40) Monotherapy in Patients with Advanced Solid Tumors at the 2023 ASCO Annual Meeting

May 25, 2023

MP0317 demonstrates tumor-localized CD40 activation in tumor biopsies through target occupancy and immune cell activation

MP0317 demonstrates a favorable safety profile across Q3W and Q1W regimens, including the highest dose tested, 10mg/kg (Q3W)

Present data support planning of future combination studies with potential partners

ZURICH-SCHLIEREN, Switzerland and CONCORD, Mass., May 25, 2023 (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, will present additional positive data from the ongoing Phase 1 study of MP0317, a CD40 agonist designed to activate immune cells specifically within the tumor microenvironment by anchoring to fibroblast activation protein (FAP), at the 2023 ASCO (American Society of Clinical Oncology) Annual Meeting, held June 2–6 in Chicago, Illinois.

The data demonstrate that MP0317 shows evidence of tumor-localized CD40 activation (analyses in paired tumor biopsies). The detection of MP0317 in tumors positively correlated with immune activation when comparing high vs. low doses of MP0317. This detection was associated with a statistically significant CD40-mediated increase of antigen-presenting cells and interferon γ signature. Furthermore, MP0317 has demonstrated a favorable safety profile. The current data support planning of future combination studies.

“These positive data continue to demonstrate that MP0317’s unique mechanism of action has the potential to overcome the limitations of existing therapies that target CD40 by activating only in the tumor microenvironment and therefore avoid systemic toxicities seen by other treatments,” said Nicolas Leupin, MD, Ph.D., Chief Medical Officer of Molecular Partners. “MP0317 encapsulates the advantages we believe we can achieve through our DARPin platform: to design candidates to overcome biological challenges that other drug classes like antibodies cannot address. These data of the ongoing study will further support the advancement of MP0317 into later-stage clinical research with partners and highlight the potential of MP0317 for evaluation in combination settings.”

“Clinical data from 36 patients with advanced solid tumors, dosed across 8 dose levels, confirms that the tumor-FAP-targeted CD40 agonist MP0317 is safe and well tolerated with limited systemic inflammation compared to other CD40 agonists,” said Dr Carlos Gomez-Roca, Head of the Early Phase & Clinical Research Unit at IUCT-Oncopole Claudius Regaud at Toulouse, France, and investigator on the study. “The analysis of paired pre- and on treatment tumor biopsies as well as peripheral biomarkers provides evidence of target occupancy and pharmacodynamic modulation in the tumor microenvironment, consistent with tumor localised CD40 activation. The current data enables further evaluation of MP0317 in combination.”

This ongoing first-in-human Phase 1, open-label, dose-escalation study assesses the safety and tolerability as well as pharmacokinetics/pharmacodynamics and antitumor activity of MP0317 monotherapy in patients with refractory/relapsed solid tumors known to express FAP and CD40 (NCT05098405). To date, the 36 patients enrolled in the Netherlands and France across eight dosing cohorts received MP0317 at doses of 0.03–10 mg/kg in every-3-weeks [q3w] and weekly [q1w] schedules (data cut-off 02 May 2023).

MP0317 monotherapy was seen to result in tumor-localized CD40 activation: biomarker data confirmed presence of MP0317 in the tumors of patients with evaluable pre- and on-treatment biopsies as of the cutoff date. This detection of MP0317 in tumors positively correlates when comparing high vs. low doses of MP0317 and was associated with a statistically significant CD40-mediated increase of antigen-presenting cells as well as interferon γ production within the tumor microenvironment. To date, one patient achieved an unconfirmed partial response and stable disease was observed in 5 additional patients.

The observed safety profile of MP0317 monotherapy to date is favorable. A dose-limiting toxicity was reported in one patient (transient asymptomatic Grade 3 elevation of liver enzymes), at the highest planned MP0317 dose of 10 mg/kg administered q3w.

The positive results of this ongoing Phase 1 study in patients with refractory/relapsed tumors support continued clinical evaluation of MP0317 and potential investigation in combination studies. The study continues to enroll one more cohort (q1w). For further information please see clinicaltrials.gov (NCT05098405).

The details of the poster presenting these results from the ongoing Phase 1 study at the ASCO 2023 Annual Meeting can be found below. The poster will be made available on Molecular Partners' website after the presentation.

Title: *Phase I study of MP0317, a FAP-dependent DARPin, for tumor-localized CD40 activation in patients with advanced solid tumors*
Poster Session: Developmental Therapeutics—Immunotherapy
Abstract number: 2584
Poster number: 426
Location & Timing: Hall A; June 3, 2023; 8:00–11:00am CDT
Authors & Affiliations:
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About MP0317

MP0317 targets both the FAP and the immunostimulatory protein CD40 to enable tumor-localized immune activation. Through this proposed mechanism of action, MP0317 is designed to activate immune cells specifically within the tumor microenvironment, potentially delivering greater efficacy with fewer side effects compared to systemic CD40-targeting therapies.

About Molecular Partners AG
Molecular Partners AG is a clinical-stage biotech company developing DARPin (designed ankyrin repeat protein) 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 virology and has compounds in various stages of clinical and preclinical development across multiple therapeutic areas. www.molecularpartners.com; Find us on Twitter - @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 expenses and cash utilization for 2022 and its expectation that its current cash resources will be sufficient to fund its operations and capital expenditure requirements into 2026. 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 AG's 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 impact of the COVID-19 pandemic 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 expected to be 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.

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