Molecular Partners Announces New Clinical Data, Immunomodulation Platform Advances, and Virology Portfolio Strategy

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- **First-in-human data from ongoing phase 1 study of MP0310 (AMG 506) demonstrate encouraging biological activity, including successful localized tumor engagement and saturation**
- **Data from ongoing phase 1 COVID-19 study show that MP0420 (ensovibep) is well tolerated in first dose cohort**
- **Unique immunomodulation platforms advanced to readiness for candidate generation using CD-3 T cell engagers and pMHC binders**
- **Virology portfolio launched with focus on major global viral threats where unique DARPin® therapeutic profile could make major impact**

Zurich-Schlieren, Switzerland, December 17, 2020. Molecular Partners AG (SIX: MOLN), a clinical-stage biotech company that is developing a new class of custom-built protein drugs known as DARPin® therapeutics, today announced multiple advances across clinical and preclinical programs, as well as an expansion of its corporate strategy to develop a portfolio of therapies targeting global viral threats. These advances will be detailed during a virtual R&D Day for investors and analysts starting at 9:00 a.m. ET on Thursday, December 17. (Registration link here)

"In 2020, we delivered several advances across our pipeline, including first clinical proof of a unique DARPin-mediated cancer-localized immune mechanism, *de novo* development and clinical entry for our COVID-19 program, and important platform advances for the design of new immunomodulatory multi-domain DARPin® molecules," said Patrick Amstutz, Ph.D., chief executive officer of Molecular Partners. "We have dramatically expanded the capabilities of the DARPin® drug class and unlocked multiple new opportunities in immuno-oncology and virology, the latter of which we are pursuing given the momentum of our first antiviral candidates and the clear fit between the DARPin® therapeutic profile and the unmet need across multiple globally significant viral infections."

In addition to senior management, Virtual R&D Day speakers will also feature Dr. Lutz Hegemann, M.D., Ph.D., Chief Operating Officer, Global Health, Novartis, and Mario Sznol M.D., Professor of Medicine (Medical Oncology); and Co-Leader, Cancer Immunology at Yale Cancer Center.

Corporate updates to be presented during the virtual event titled "*Unlock and Expand: Custom Built Biology for Patients*" will include:

Oncology: MP0310/AMG 506 (targeting 4-1BB x FAP)

- At the time of analysis, 19 of the 22 patients were available for evaluation. Of these, 50% of patients achieved stable disease (SD). To date, this multiple ascending dose, phase 1 study (0.5mg/kg-12mg/kg every 3 weeks) has reported no dose-limiting toxicities and no serious adverse events (SAEs) of special interest.
- Tumor biopsies confirm that MP0310 colocalizes to areas with high concentration of a tumor microenvironment-associated protein, fibroblast activation protein (FAP), which is a key characteristic of the mechanism of action. Additionally, significant increases in immune activation were seen across multiple immune cells, while inflammatory markers were unchanged, and no MP0310 activity was seen in peripheral tissues.
- Grade 2/3 infusion-related responses (IRRs) were observed in 12 patients and were manageable.
- Next steps will include investigating an optimized dosing schedule via exploration of weekly administration.

Oncology: MP0317 (targeting FAP x CD-40)

- Phase 1 initiation for MP0317 is now anticipated in H2 2021 due to a loss of drug supply associated with fill/finish procedures. New batches of MP0317 will be produced in H1 2021 and the clinical study is anticipated to initiate shortly thereafter.

COVID-19: MP0420 (ensovibep) (targeting three parts of SARS-CoV-2 spike protein)

- The phase 1 study of MP0420 is now enrolling the second of its 3 dosing cohorts. To date ensovibep has been seen to be well tolerated. The final dosing cohort is expected to enroll in the coming weeks and final data will be available in the first quarter of 2021.
- Additional clinical studies of ensovibep are planned to initiate throughout the first half of 2021, with the goal of achieving clinical proof of concept and potential emergency use authorization within 2021.

Preclinical platforms expansion

- Advanced the peptide MHC (pMHC) therapeutics platform with data demonstrating high potency/specificity of research candidates and established half-life extension. These technical proofs-of-concept have resolved several major challenges of classical pMHC-targeted discovery and is now ready for therapeutic candidate generation.
- The T cell engager therapeutics platform has demonstrated both highly selective and targeted T cell engagement, context-dependent T cell engagement, and 'slow release' T cell engagement, giving multiple new levels of control over this powerful immunomodulatory mechanism.
- Additional data across these platforms are submitted for the upcoming American Association for Cancer Research (AACR) conference in April 2021.

A live webcast of the Virtual R&D Day will be available in the Investors section of the Company's website at www.molecularpartners.com. An archived webcast recording of the event will be available on the website following the presentation.

About DARPin® therapeutics

DARPin® therapeutics are a new class of custom-built protein therapeutics based on natural binding proteins that open a new dimension of multi-functionality and multi-target specificity in drug design. A single DARPin® candidate can engage more than five targets, and its flexible architecture and small size offer benefits over conventional monoclonal antibodies or other currently available protein therapeutics. DARPin® therapeutics have been clinically validated through to the registrational stage. The DARPin® platform is a fast and cost-effective drug discovery engine, producing drug candidates with optimized properties for development and very high production yields. DARPin® is a registered trademark owned by Molecular Partners AG.

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 ophthalmology, oncology and infectious disease, and has compounds in various stages of clinical and preclinical development across multiple therapeutic areas. www.molecularpartners.com; Follow the Company on Twitter at @MolecularPrtnrs.

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