Molecular Partners Presents Preclinical Data Supporting Tumor Localization Mechanism of its CD40 Agonist MP0317 at World Bispecific Summit

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- **MP0317 activates multiple antitumor immune cell types in vitro when in the presence of tumor stroma associated FAP**
- **MP0317 mouse surrogate localizes to FAP-expressing tumors and induces strong and durable anti-tumor responses without systemic toxicity, and demonstrates strong anti-tumor immune memory responses**

Zurich-Schlieren, Switzerland, September 24, 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 the presentation of preclinical findings supporting the mechanism of MP0317, a tri-specific DARPin® product candidate that includes binding domains for fibroblast activation protein (FAP), CD40, and human serum albumin (HSA). The presentation, titled "Novel therapeutic design of tumor-targeted CD40 agonist DARPin® molecule leads to antitumor activity with limited toxicity", will be presented today at 2pm (EDT) at the 11th Annual World Bispecific Summit by Clara Domke, a senior scientist oncology research at Molecular Partners.

Data presented demonstrate that a mouse surrogate MP0317 molecule induces FAP-dependent activation of B cells, dendritic cells and macrophages. FAP is expressed on activated cancer associated fibroblasts (CAF) and is overexpressed in the stroma of many solid tumors. Since MP0317 only activates these immune cells in the presence of FAP, MP0317 may avoid the dose-limiting side effects historically associated with systemic administration of CD40 antibodies. Additionally, in a FAP-positive colorectal cancer model, MP0317 induced complete tumor responses and demonstrated induction of an anti-tumor immunological memory, protecting the mice against subsequent tumor challenges without the need for additional treatment.

"Potent and situationally-activated antitumor therapies are an important new area for cancer treatment, when systemic toxicity can limit effective dosing of therapies with proven mechanisms like CD40 activation. With MP0317 we are tackling multiple kinds of cancer where highly fibrous, FAP-rich stromal tissue has historically presented a barrier to immune cell penetration. These data demonstrate the potential for turning this barrier into a target, by utilizing it as an anchor for the delivery of super-potent immunostimulatory molecules," said Nicolas Leupin M.D., chief medical officer of Molecular Partners. "We look forward to filing appropriate regulatory applications for MP0317 around the end of 2020 and initiating clinical studies in the first half of 2021."

The presentation will be made available on the company's corporate website, www.molecularpartners.com.

About Molecular Partners' Oncology Portfolio

DARPin® therapeutic candidates are uniquely versatile, custom-built molecules with the potential to help people suffering from a broad range of diseases, including cancer. Given their small size, multi-functional design and unique binding surfaces, DARPin® molecules can address molecular targets that have been difficult to access by other drug modalities, such as antibodies. Molecular Partners has delivered substantial proof-of-concept in its oncology portfolio by advancing investigational DARPin® therapeutics against highly validated targets such as HER2, HGF and VEGF into clinical studies. The Company has focused the next phase of its oncology portfolio strategy on exploring targets with novel mechanisms for selective and site-specific immune cell activation. Molecular Partners has designed DARPin® candidates to activate only when proximal to the target tumor, improving efficacy and potentially eliminating systemic off-target side effects. Promising immune modulators such as peptide-MHC complexes, 4-1BB and CD40 are also the target of novel DARPin® programs. Further, DARPin® approaches are applied to novel targets such as peptide MHC-complexes.

About Molecular Partners AG

Molecular Partners AG is a clinical-stage biotech company developing a new class of custom-built protein drugs known as DARPin® therapeutics, designed to address challenges current modalities cannot. The company has compounds in various stages of clinical and preclinical development with a focus on oncology. Molecular Partners has formed partnerships with leading pharmaceutical companies to advance DARPin® therapeutics across multiple therapeutic areas.

For more information regarding Molecular Partners AG, go to: www.molecularpartners.com

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