Molecular Partners Presents Updated Results of MP0250 in Patients with Relapsed/Refractory Multiple Myeloma (MM) at American Society of Hematology Annual Meeting

December 7, 2019

- **Poster highlights Overall Response Rate (ORR) of 45% in heavily pretreated MM population**
- **Strong evidence of durable and deepening responses with ongoing treatment in excess of 9 months in multiple patients, including one patient who achieved a Complete Response (CR)**
- **Mechanism of action targeting the microenvironment, inhibiting two signaling pathways, affecting tumor cell growth**
- **Additional data to be presented at Molecular Partners' R&D Day in NYC on December 12, 2019**

Zurich-Schlieren, Switzerland, December 7, 2019. Molecular Partners AG (SIX:MOLN), a clinical-stage biotech company pioneering the use of DARPin® therapeutics* to treat serious diseases, today announced a poster presentation at the American Society of Hematology 61st Annual Meeting in Orlando, FL, highlighting the activity of its tri-specific DARPin® drug candidate, MP0250, in patients undergoing treatment for multiple myeloma.

MP0250 is a first-in-class, tri-specific multi-DARPin® drug candidate neutralizing VEGF-A and HGF and is binding to human serum albumin to increase plasma half-life. The unique mechanism of action of MP0250 represents a new approach to targeting the tumor microenvironment and increase patients' responses to already approved therapies for multiple myeloma, potentially even after progression.

"At present, anti-angiogenic agents are not part of treatment strategies in multiple myeloma, neither alone nor in combination with approved agents," commented Nicolas Leupin, Chief Medical Officer of Molecular Partners. "MP0250 represents a unique and much-needed addition to the treatment paradigm for patients with multiple myeloma. We believe that by treating one of the underlying causes of the disease through targeting the tumor microenvironment, we can achieve durable and deep responses in patients relapsing after or refractory to treatment regimens including bortezomib, IMiDs or daratumumab. The response rate seen in this study, given the heavily pretreated patient population involved, is very encouraging. We look forward to the generation of additional combination data for MP0250 with relevant treatments to further detail the potential for this program."

The full poster, titled "The MP0250-CP201 MiRRoR Study: A Phase 2 Study Update of MP0250 Plus Bortezomib and Dexamethasone in Relapsed/Refractory Multiple Myeloma (RRMM) Patients Previously Exposed to Proteasome Inhibitors and Immunomodulatory Drugs", will be available for viewing in Exhibit Hall B from 5:30-7:30 p.m. EST on Saturday, December 7, 2019, and will be available at the company website, www.molecularpartners.com. A summary of the poster details are below:

• At the efficacy cut-off date of November 5, 2019, all 20 patients were evaluable for tumor response. One patient achieved a complete response (CR), three patients achieved very good partial responses (VGPR) and five patients achieved PRs, giving an ORR of 45%.

• All 20 patients had prior exposure to IMiDs and PIs and nine patients received PI-based regimens as their immediate prior line of therapy before the start of MP0250 + Vd. The median number of prior therapies was 4 (range 2-9).

• Importantly, six of nine patients who were either relapsed or refractory to a PI-based regimen prior to the triple combination achieved CR, VGPR or PR. Median duration of response for patients was 5 months (range 2-24 months). The patient with CR and two patients with VGPR have been on treatment for more than 9 months.

• Combining MP0250 at 8 mg/kg with standard doses of bortezomib and dexamethasone was generally well tolerated with discontinuation due to adverse events (AE) in only 15% of patients. No unexpected toxicity was observed and AEs reported were consistent with the toxicity profile of the individual agents.

Trial Design of MP0250-CP201 MiRRoR Study

The trial is recruiting adults ≥18 years of age with RRMM who have progressed after at least two prior treatment regimens, including bortezomib and an IMiD. Patients were enrolled to receive intravenous MP0250 on day 1 plus subcutaneous bortezomib 1.3 mg/m² on days 1, 4, 8, 11, oral dexamethasone 20 mg on days 1-2, 4-5, 8-9, 11-12 of each 21-day cycle. Patients will receive treatment until there is documented disease progression or unacceptable toxicity.

In addition to this poster presentation the company will highlight additional details from its MP0250 program, as well as the rest of its pipeline and discovery platform, at an R&D day to be held at the Yale Club in New York City on December 12th, 2019. To RSVP please contact Seth Lewis at seth.lewis@molecularpartners.com

Financial Calendar

December 12, 2019	R&D Day in New York City

February 6, 2020	Publication of Full-year Results 2019 (unaudited)
April 29, 2020	Annual General Meeting

http://investors.molecularpartners.com/financial-calendar-and-events/

About the DARPin® Difference

DARPin® therapeutics are a new class of protein therapeutics opening an extra dimension of multi-specificity and multi-functionality. DARPin® candidates can engage more than five targets, offering potential benefits over those offered by conventional monoclonal antibodies or other currently available protein therapeutics. The DARPin® technology is a fast and cost-effective drug discovery engine, producing drug candidates with ideal properties for development and very high production yields.

With their low immunogenicity and long half-life in the bloodstream and the eye, DARPin® therapeutics have the potential to advance modern medicine and significantly improve the treatment of serious diseases, including cancer and sight-threatening disorders. Molecular Partners is partnering with Allergan to advance clinical programs in ophthalmology and is advancing a proprietary pipeline of DARPin® drug candidates in oncology and immuno-oncology. The most advanced global product candidate in partnership with Allergan is abicipar, a molecule for which phase 3 data have been filed to the respective regulators in both the US and in Europe. Several DARPin® molecules for various ophthalmic indications are also in preclinical development. The most advanced DARPin® therapeutic candidate wholly owned by Molecular Partners, MP0250, is in phase 2 clinical development for the treatment of hematological tumors. MP0274, the second-most advanced DARPin® candidate owned by Molecular Partners, binds to Her2 and inhibits downstream signaling, which leads to induction of apoptosis. MP0274 is currently in phase 1. The company's lead immuno-oncology product candidate MP0310 is a FAP x 4-1BB multi-DARPin® therapeutic candidate designed to locally activate immune cells in the tumor by binding to FAP on tumor stromal cells (localizer) and co-stimulating T cells via 4-1BB (immune modulator). Molecular Partners has closed a collaboration agreement with Amgen for the exclusive clinical development and commercialization of MP0310. The molecule has entered in phase 1 of clinical development in H2 2019. Molecular Partners is also advancing a growing preclinical and research pipeline in immuno-oncology that features its "I/O toolbox" and additional development programs such as novel therapeutic designs to target peptide-MHC complexes. DARPin® is a registered trademark owned by Molecular Partners AG.

About Molecular Partners AG

Molecular Partners AG is a clinical-stage biotech company that is developing a new class of therapies known as DARPin® therapeutics. The company continues to attract talented individuals who share the passion to develop breakthrough medicines for serious diseases. Molecular Partners has compounds in various stages of clinical and preclinical development and several more in the research stage, with a current focus on oncology and immuno-oncology. The company establishes research and development partnerships with leading pharmaceutical companies and is backed by established biotech investors.

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

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