

Quarterly Management Statement for the Period Ending March 31, 2017

May 4, 2017

Research & Development:

- MP0250: Phase 2 in multiple myeloma: First patients expected in the coming months. Full regulatory approvals received for Germany, approvals
 in Poland and Italy expected in the coming weeks
- MP0250: Additional Phase 2 trial for solid tumor indication to be submitted in 2017; targeted indication to be disclosed in Q2 2017
- MP0274: Regulatory submission ongoing for Phase 1 trial, a multi-specific DARPin® candidate for treatment of HER2-positive solid tumors;
 Mode of action data presented at AACR Annual Meeting in April 2017
- . Immuno-oncology: Advancement of proprietary programs continues; Further data to be presented at EACR in Florence
- . Abicipar: Phase 3 trials in wet AMD (wet age-related macular degeneration) progress in line with expectations and previous announcements
- Abicipar: Allergan expected to start Phase 3 trials in DME (diabetic macular edema) in H2 2017

Financial Highlights:

- . Ongoing strong financial position with CHF 169.2 million in cash and short-term time deposits as of March 31, 2017
- Net cash used in operating activities of CHF 10.1 million in Q1 2017, reflecting scale-up of R&D, pipeline growth and progress of proprietary clinical programs
- . Operating loss of CHF 6.7 million and net loss of CHF 7.6 million in the first quarter

Governance, Team & Other:

- Talent base with 102 full-time employees, up 9% year-over-year and unchanged compared to year-end 2016, reflecting strengthening of clinical team
- . Gwen Fyfe, MD, to be proposed for election to Board of Directors at Annual General Meeting on May 11, 2017
- Early April, venture capital investors reduced holding from 42% to 28% of share capital; Private investors acquired shares from venture capitalists in secondary block trades

Zurich-Schlieren, May 04, 2017. Molecular Partners AG (SIX: MOLN), a clinical-stage biopharmaceutical company that is developing a new class of drugs, known as DARPin® therapies, today announced its Quarterly Management Statement and key financial highlights for the first quarter ending March 31, 2017.

"We are very pleased with the progress of our DARPin® drug candidates in all therapeutic areas during the first months into 2017. For our lead oncology asset MP0250 we have received full regulatory approvals in Germany to commence our Phase 2 trial. The first patients are expected in the coming months. Moreover, we presented additional data on MP0274 as well as on our growing immune-oncology franchise at the important AACR Annual Meeting in the US," said Dr. Patrick Amstutz, acting Chief Executive Officer of Molecular Partners. "2017 will be an exciting year for our company. We plan to submit the regulatory package for the second indication for the Phase 2 trial of MP0250 also in 2017. In addition, we expect to start recruitment for our Phase 1 trial of MP0274 in the second half of the year. Finally, in ophthalmology, we are nearing the full enrollment of the abicipar Phase 3 trials in wet-AMD in collaboration with Allergan, a key milestone for our most advanced DARPin® molecule in our pipeline."

Regulatory approvals received for MP0250 Phase 2

The first Phase 2 study of MP0250 will examine this agent in combination with bortezomib (Velcade®) and dexamethasone in patients with multiple myeloma who have failed standard therapies. This Phase 2 study has been approved in Germany, with first patients entering the study in the coming months. Poland and Italy should receive approval in the coming weeks. Initial safety data are expected in 2017 and efficacy data in 2018.

Second indication for Phase 2 trial of MP0250 to be disclosed in Q2 2017

Given Phase 1 trials of MP0250 had underscored the potential value of MP0250 as a new therapeutic for various tumor types, Molecular Partners will conduct an additional Phase 2 trial for a solid tumor indication. The company will disclose details of this study in Q2 2017.

MP0274 presented at AACR Annual Meeting

In Q1 2017, the regulatory submissions for the Phase 1 trial of MP0274 continued. MP0274 is a proprietary, single-pathway DARPin® drug candidate for the treatment of HER2-positive breast cancer with a completely new mode of action compared to current standard of care antibodies. In an oral presentation on April 04, 2017, at the AACR Annual Meeting the company was able to highlight the unique and distinct inhibition of the HER2 signaling cascade, different from trastuzumab, pertuzumab and a combination of both. As these data show, MP0274 induces a profound inhibition of specific downstream signaling pathways, providing mechanistic support to the finding that MP0274 directly kills HER2-addicted tumor cells through the induction of apoptosis.

Poster for PD-1 / VEGF DARPin® molecule presented at AACR Annual Meeting

In an additional poster presentation at the AACR Annual Meeting, the company was able to present the potential effect of its proprietary multi-specific PD1 and VEGF targeting DARPin® molecule. This DARPin® therapeutic goes beyond targeting PD1 or VEGF alone and hence is expected to offer a strong potential for therapeutic benefit in the clinic, by blocking PD1 and VEGF mediated functions in tumor growth and immunity. The company plans to present further data on its immune-oncology programs at the EACR conference in Florence

Abicipar Phase 3 trials in wet AMD and patient recruitment progress as expected

Patient enrollment in the two Phase 3 trials of abicipar for patients with wet age-related macular degeneration (wet AMD) continues to progress in line with expectations. One-year efficacy data from the two Phase 3 abicipar trials continue to be expected for 2018.

Phase 3 trials for DME to start in H2 2017

Allergan has reconfirmed the previously announced plan to start a Phase 3 trial of abicipar for DME in H2 2017. This Phase 3 trial will use an updated formulation compared to the phase 2 trial

Financial highlights: Ongoing strong position

In the first quarter of 2017, Molecular Partners recognized total revenues of CHF 3.1 million (Q1 2016: CHF 6.8 million) and incurred operating expenses of CHF 9.8 million (Q1 2016: CHF 9.0 million). This led to an operating loss of CHF 6.7 million for the quarter (Q1 2016: operating loss of CHF 2.2 million). The company recognized net financing expenses of CHF 0.9 million (Q1 2016: net financing expenses of CHF 2.0 million), mainly driven by negative FX effects on USD and EUR cash positions. This resulted in a net loss of CHF 7.6 million for the first

quarter 2017 (Q1 2016: net loss of CHF 4.2 million).

The net cash used from operating activities during the first quarter 2017 was CHF 10.1 million (Q1 2016: net cash used of CHF 7.2 million). Including the time deposits, the cash and cash equivalents position of the company decreased by CHF 11.0 million versus year-end 2016 to CHF 169.2 million as of March 31, 2017 (December 31, 2016: CHF 180.2 million). The total shareholders' equity position decreased to CHF 129.3 million as of March 31, 2016: CHF 135.8 million).

As of March 31, 2017, the company employed 102 FTEs, about 90% of whom are employed in R&D functions (December 31, 2016: 103 FTEs).

Key figures as of March 31, 2017

Key Financials (unaudited) (CHF million, except per share, FTE data)	Q1 2017	Q1 2016	change
Total revenues	3.1	6.8	-3.7
R&D expenses	-8.0	-7.5	-0.5
G&A expenses	-1.8	-1.5	-0.3
Operating result	-6.7	-2.2	-4.5
Net financial result	-0.9	-2.0	1.1
Net result	-7.6	-4.2	-3.4
Basic net result per share (in CHF)	-0.37	-0.21	-0.16
Net cash from (used in) operating activities	-10.1	-7.2	-2.9
Cash balance (incl. time deposits) as of March 31	169.2	205.9	-36.7
Total shareholders' equity as of March 31	129.3	147.0	-17.7
Number of total FTE as of March 31	102.0	93.7	8.3
- thereof in R&D	91.4	85.5	5.9
- thereof in G&A	10.6	8.2	2.4

"During the first three months in 2017, Molecular Partners' financial position continued to develop fully in line with our expectations," said Andreas Emmenegger, Chief Financial Officer of Molecular Partners. "Our ongoing strong cash position continues to provide us with the financial flexibility and a forecasted cash runway until at least end of 2019 – well beyond our key value inflection points."

Substantial change in shareholder base: Private investors buy stake from venture capitalists

After the end of the first quarter, on April 06, 2017, the company disclosed a substantial change in its shareholders base: Index Ventures Funds fell below 10% to 8.18%, Essex Woodlands Health Ventures Funds, below 10% to 7.82%, and Johnson & Johnson Innovation, below 5% to 4.25%. As a result, the shareholding of Molecular Partners' venture capital investors was reduced to 28% of the company's share capital. Several private investors acquired these shares from the venture capitalist investors in secondary block trades.

"We are pleased to report the continued evolution of our shareholder base as we progress our pipeline of innovative DARPin® therapies towards multiple value inflection points in 2018 and beyond. We are grateful for the continued support of our long-term investors who recognized the clinical and commercial potential of our DARPin® platform more than a decade ago," said Patrick Amstutz, acting Chief Executive Officer of Molecular Partners.

Business outlook and priorities

For the company's proprietary **oncology** pipeline, initial safety data from the Phase 2 trial of MP0250 in patients with multiple myeloma (MM) and other serious cancers are expected in 2017 and efficacy data in 2018. In Q2 2017, the company will disclose further details as well as the targeted solid tumor indication for the additional Phase 2 trial of MP0250. With respect to MP0274, a proprietary, single-pathway DARPin® drug candidate for the treatment of HER2-positive breast cancer, the company will initiate the corresponding Phase 1 trial in 2017.

The company will continue to advance its **immuno-oncology pipeline** and will present further research data in 2017. In this attractive field, Molecular Partners has demonstrated the potential utility of targeting immune checkpoint modulators (ICMs) via combination therapy (e.g., simultaneous inhibition of PD-1 and VEGF) or activating agonists in a tumor-restricted way.

In **ophthalmology**, Molecular Partners will continue to support its strategic partner Allergan in advancing abicipar through Phase 3 trials in patients with wet AMD and in initiating in H2 2017 the Phase 3 trials of abicipar in patients with DME, the next logical retinal indication.

Financial outlook 2017

Molecular Partners reiterates all elements of the financial outlook 2017 as provided in the company's 2016 full-year results on February 9, 2017.

For the full year 2017, at constant exchange rates, the company expects total expenses of around CHF 50-60 million, of which around CHF 6 million will be non-cash effective costs for share-based payments, IFRS pension accounting and depreciations. However, this guidance is subject to the progress of the pipeline, mainly driven by manufacturing costs, the speed of enrollment of patients in clinical trials and data from research and development projects. Additionally, the company expects around CHF 2 million of capital expenditures, mainly for laboratory equipment.

No guidance can be provided with regard to net cash flow projections. Timelines and potential milestone payments for existing and potentially new partnerships are not disclosed.

Financial Calendar

May 11, 2017 Annual General Meeting

August 30, 2017 Publication of 2017 Half-year Results
October 26, 2017 Q3 2017 Management Statement

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 are potent, specific, safe and very versatile. They can engaging in more than 5 targets at once, 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 good safety profile, low immunogenicity and long half-life in the bloodstream and the eye, DARPin® therapies 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. The most advanced global product candidate is abicipar, a molecule currently in Phase 3, in partnership with Allergan. Several DARPin® molecules for various ophthalmic indications are also in development. The most advanced systemic DARPin® molecule, MP0250, is in Phase 1 clinical development for the treatment of solid tumors and moves into Phase 2 for hematological and later for solid tumors. MP0274, the second-most advanced DARPin® drug candidate in oncology, has broad anti-HER activity; it inhibits HER1, HER2 and HER3-mediated downstream signaling via Her2, leading to induction of apoptosis. MP0274 is currently moving in Phase 1. Molecular Partners is also advancing a growing preclinical pipeline that features several immuno-oncological development programs. DARPin® is a registered trademark owned by

Molecular Partners AG.

About Molecular Partners AG

Molecular Partners AG is a clinical-stage biopharmaceutical company that is developing a new class of therapies known as DARPin® therapies. With a management team that includes many of the founding scientists, 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 ophthalmology and 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.

For further details please contact:

Dr. Patrick Amstutz, acting CEO patrick.amstutz@molecularpartners.com Tel: +41 (0) 44 755 77 00

Andreas.Emmenegger, CFO

andreas.emmenegger@molecularpartners.com

Tel: +41 (0) 44 755 77 00

Rolf Schläpfer Hirzel.Neef.Schmid.Counselors rolf.schlaepfer@konsulenten.ch Tel: +41 (0) 43 344 42 42

Susan A. Noonan S.A. Noonan Communications, LLC susan@sanoonan.com Tel: +1 212 966 3650

Disclaimer

This communication does not constitute an offer or invitation to subscribe for or purchase any securities of Molecular Partners AG. This publication may contain certain forward-looking statements and assessments or intentions concerning the company and its business. Such statements involve certain risks, uncertainties and other factors which could cause the actual results, financial condition, performance or achievements of the company to be materially different from those expressed or implied by such statements. Readers should therefore not place reliance on these statements, particularly not in connection with any contract or investment decision. The company disclaims any obligation to update these forward-looking statements, assessments or intentions.