Molecular Partners and Novartis Report Positive Topline Data from Phase 2 Study for Ensovibep (MP0420), a DARPin Antiviral Therapeutic for COVID-19

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- *Topline results from the randomized, placebo-controlled EMPATHY Part A study in acute COVID-19 ambulatory patients comparing single intravenous doses of ensovibep, a DARPin antiviral therapeutic candidate vs. placebo, met the primary endpoint of viral load reduction over eight days*
- *The secondary endpoint of hospitalization and/or ER visits related to COVID-19, or death showed an overall 78% reduction in risk of events across ensovibep arms compared to placebo; No deaths were observed in the ensovibep treatment arms*
- *A total of 407 patients were recruited in the Phase 2 study and ensovibep was safe and well-tolerated at all doses (75mg, 225mg and 600mg) – with 75mg the planned dose for further development*
- *Ensovibep continues to maintain potent in vitro pan-variant activity against all variants of concern identified so far, including Omicron*
- *Ensovibep is a multi-specific DARPin (Designed Ankyrin Repeat Protein), specifically designed to block the receptor binding domains of SARS-CoV-2 spike protein through highly potent and cooperative binding, making it challenging for escape mutants*
- *Novartis confirms it will exercise its option to in-license ensovibep from Molecular Partners, accelerate manufacturing scale-up, and plans to seek expedited regulatory authorizations globally – first via the U.S. Food and Drug Administration's (FDA) Emergency Use Authorization (EUA)*
- *Upon completion of in-licensing, Molecular Partners will receive a milestone payment of 150M CHF and be entitled to a 22% royalty on sales of ensovibep in commercial territories*

ZURICH-SCHLIEREN, Switzerland and CONCORD, Mass., Jan. 10, 2022 (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, and Novartis today announced that Part A of the EMPATHY clinical trial[1], that compared single intravenous doses of ensovibep, a DARPin antiviral therapeutic candidate vs. placebo to treat COVID-19, met the primary endpoint of viral load reduction over eight days. The two secondary endpoints also showed clinically meaningful benefit over placebo – (1) composite endpoint of hospitalization and/or Emergency Room (ER) visits or death, and (2) time to sustained clinical recovery. Novartis confirms it will now exercise its option to in-license ensovibep from Molecular Partners and, following exercise of the option, will seek expedited access globally, first via the FDA's EUA process.

The global EMPATHY clinical trial, which is being conducted by Novartis, with Molecular Partners as sponsor, is a randomized, double-blind, placebo controlled study in ambulatory (non-hospitalized) adult patients with COVID-19. EMPATHY Part A enrolled 407 patients to identify a dose of ensovibep with optimal safety and efficacy and recruited patients in the USA, South Africa, India, the Netherlands, and Hungary to explore three doses: 75mg, 225mg and 600mg.

Results from the study showed that the primary endpoint was met with a statistically significant reduction in viral load over eight days, compared to placebo, for all three dosing arms. The secondary endpoint of hospitalization and/or ER visits related to COVID-19, or death showed an overall 78% reduction in risk of events across ensovibep arms compared to placebo. Treatment arms were generally balanced in terms of demographic, baseline and disease characteristics. The placebo arm with 99 patients had a total of six events (event rate of 6%); five patients were hospitalized, two of whom died due to worsening of COVID-19 and one patient had an ER visit only. In the 301 patients treated with ensovibep, there were four events; hospitalizations occurred in two patients and two needed to visit ER (event rate of 1.3%). No deaths occurred in any of the patients treated with ensovibep. All doses were well-tolerated and no unexpected safety issues were identified for any of the doses[2]. The lowest dose of 75mg is the planned dose for further development. The data will now undergo further review so that Novartis and Molecular Partners can determine the appropriate next steps for the program.

"These encouraging results come at a time when the need for therapies with pan-variant activity, such as ensovibep, has never been greater. We are incredibly excited about the opportunity to provide a potential therapeutic option for patients around the world who require access to effective COVID-19 treatments," said Patrick Amstutz, Ph.D., CEO of Molecular Partners. "Today's data are a culmination of a persistent team effort, between ourselves and Novartis, to deliver a tailored antiviral with demonstrated safety and efficacy in global clinical trials. As pioneers of DARPin therapeutics, our team has the unique ability to rapidly generate and develop multi-specific DARPin therapeutics. We look forward to continue to demonstrate our capabilities and the potential of our pipeline in oncology and virology for patients in need."

As the SARS-CoV-2 virus evolves, a multi-solution strategy is needed to combat the pandemic and there will be a need for antiviral treatments to

complement the global vaccination efforts. Despite availability of vaccinations, there continues to be disease transmission, either through pockets of unvaccinated populations, in patients with compromised immune systems and co-morbidities or through emerging variants, and breakthrough infections are likely to continue. A recent in vitro analysis[3] also showed that ensovibep maintains full neutralization of the pseudoviruses containing the mutations identical to the Omicron variant of concern.

"We are pleased that the results from the EMPATHY trial demonstrate the positive therapeutic effect of ensovibep, with the potential to be an important new treatment option to combat the rapidly evolving SARS-CoV-2 pandemic," said Vas Narasimhan, CEO of Novartis. "As COVID-19 continues to burden healthcare systems across the globe, a range of treatments will be needed, and Novartis is proud to continue our collaboration with Molecular Partners on this unique treatment for COVID-19 and contribute ensovibep to this suite of options."

Given the pressing public health emergency and the rapid spread of the Omicron variant across the world, Novartis and Molecular Partners are in close liaison with regulatory bodies to seek expedited review and approval of ensovibep as soon as possible. If approved, ensovibep will be the first multi-specific antiviral molecule for the treatment of COVID-19.

Novartis has informed Molecular Partners of its intent to option its exclusive license to global rights of ensovibep, which will lead to a milestone payment of CHF 150m. In addition, Molecular Partners will be eligible to receive 22% royalty on sales. Molecular Partners has agreed to forgo royalties in lower income countries and is aligned with Novartis' plans to ensure affordability based on countries' needs and capabilities. With the decision made to exercise the option, Novartis will become responsible for development, manufacturing, distribution and commercialization activities of ensovibep. Novartis has already initiated scale-up activities in its large-scale biologics production facilities.

Financial guidance update
The Company expects approximately CHF 133 million cash and cash equivalents as per December 31, 2021. Upon receipt of the CHF 150 million option exercise milestone from Novartis, Molecular Partners now estimates its cash runway to extend well into 2025, excluding any potential royalty income as well as excluding potential further cash flows to or from R&D partners.

Conference call and audio webcast
Molecular Partners will hold a conference call and audio webcast on Monday, January 10, 2022, at 7am ET.

To register for the conference call, please dial the following numbers approximately 10 minutes before the start of the presentation:

Switzerland / Europe	0800836508
USA	(844) 865-3856
Conference ID	5090778

Participants in the conference call will have the opportunity to ask questions after a statement from management.

Audio webcast
The call will be webcast live and will be made available on the Company's website under the investor section. The replay will be available for 90 days following the presentation. Webcast participants will have the opportunity to ask questions via chat.

About ensovibep
Ensovibep is a DARPin therapeutic candidate, designed specifically to inactivate SARS-CoV-2, the virus that causes COVID-19. DARPins (Designed Ankyrin Repeat Proteins) are mono- or multi-specific protein-based therapies, designed to specifically engage their targets for various effects. Ensovibep was designed to include three individual DARPin domains, each highly neutralizing to SARS-CoV-2. With these domains constructed into a single molecule, ensovibep can block the receptor-binding domain (RBD) of the SARS-CoV-2 spike protein through highly potent and cooperative binding. This design ensures strong neutralization, even in the presence of mutations of the spike protein and limits the development of escape mutants. Several characteristics of DARPin therapeutics make them suitable for COVID-19 treatment, including multi-specific binding, the rapid onset of action, and scalable bacterial production.

In vitro testing has shown high neutralization activity of ensovibep against all known SARS-CoV-2 variants, including the variants of concern: Alpha, Beta, Gamma, Delta and Omicron.[3]

About the EMPATHY clinical trial program[2]
Following promising Phase 1 clinical data for ensovibep the global EMPATHY clinical trial was initiated by Novartis, with Molecular Partners as sponsor, in May 2021. EMPATHY is a Phase 2 and 3 study looking at the safety and efficacy of ensovibep in symptomatic COVID-19 patients in the ambulatory (non-hospitalized) setting. Ensovibep is administered via a single dose IV infusion.

The EMPATHY clinical trial plans to enroll 2,100 patients. 407 patients were randomized into four arms of Part A of the study to identify a dose with optimal safety and efficacy. The clinical efficacy and safety of this dose vs. placebo will be further evaluated in Part B, the Phase 3 component of the EMPATHY study which will enroll an additional 1,700 patients globally.

The EMPATHY clinical trial enrolled both vaccinated and unvaccinated adult patients who have experienced at least two mild/ moderate symptoms of COVID-19 within seven days of onset and had a positive rapid antigen test on the day of dosing, confirmed by a PCR test at baseline. The COVID-19 symptoms include fever, cough, sore throat, low energy, tiredness, headache, muscle or body aches, chills and/ or shortness of breath.

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

References

1. https://clinicaltrials.gov/ct2/show/NCT04828161?term=ensovibep&draw=2&rank=2

2. Data on file, Molecular Partners, 2021.
3. https://www.biorxiv.org/content/10.1101/2021.02.03.429164v3

Cautionary Note Regarding Forward-Looking Statements

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, including expectations regarding timing of clinical trials or the potential therapeutic and clinical benefits of Molecular Partners' product candidates. 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 our expectations include our reliance on third party partners and collaborators over which we may not always have full control; our plans to develop and potentially commercialize our product candidates; our ongoing and planned clinical trials and preclinical studies for our product candidates, including the timing of such trials and studies; the timing of and our ability to obtain and maintain regulatory approvals for our product candidates; our commercialization, marketing and manufacturing capabilities and strategy; our ability to identify and in-license additional product candidates; the extent of clinical trials potentially required for our product candidates; the clinical utility and ability to achieve market acceptance of our product candidates; our intellectual property position; and other risks and uncertainties that are described in the Risk Factors section of Molecular Partners' Registration Statement on Form F-1 filed with Securities and Exchange Commission (SEC) on June 14, 2021 and other filings Molecular Partners makes with the SEC. These documents are available on the Investors page of Molecular Partners' website at http://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.

For further details, please contact: Seth Lewis seth.lewis@molecularpartners.com Tel: +1 781 420 2361 Shai Biran, Ph.D. shai.biran@molecularpartners.com Tel: +1 978 254 6286 Thomas Schneckenburger, European IR & Media thomas.schneckenburger@molecularpartners.com Tel: +41 79 407 9952