Novartis and Molecular Partners announce start of EMPATHY clinical trial for ensovibep for the treatment of COVID-19

May 27, 2021

- **EMPATHY global multi-center Phase 2 – 3 study, recruiting patients with COVID-19 infection, aiming to prevent worsening symptoms and hospitalization**
- **The study plans to enroll 2100 patients, with 400 patients to be enrolled into Phase 2, followed by 1700 patients in Phase 3**
- **Novartis has been granted an option from Molecular Partners to in-license global rights of ensovibep and MP0423 – DARPin® antiviral therapeutic candidates that are undergoing testing to target SARS-CoV-2 spike protein**
- **DARPin® therapeutics well suited for a pandemic setting due to multi-specific target binding, long half-life for sustained activity and highly scalable production, compared to monoclonal antibodies**

Zurich-Schlieren, Switzerland, May 27, 2021. Molecular Partners AG (SIX: MOLN) and Novartis announced today the start of the clinical trial EMPATHY, a Phase 2 and 3 study, to explore the use of its novel DARPin® therapeutic candidate ensovibep (MP0420) for the treatment of COVID-19. Novartis will conduct the clinical trial program for ensovibep, with Molecular Partners as sponsor of the studies. In March 2021, Molecular Partners reported positive initial Phase 1 results in healthy volunteers.

The EMPATHY clinical trial program is investigating the safety and efficacy of ensovibep in patients with COVID-19, who are in the early stages of infection, to prevent worsening symptoms and hospitalization. The study will enroll 400 patients in Phase 2 to identify a dose with optimal safety and activity, with initial results anticipated in August 2021. At that point Phase 3 will move ahead with an additional 1,700 patients with results anticipated in H1 2022. If the initial EMPATHY trial results are convincing, this would pave the way for Novartis to seek expedited approval via the FDA's Emergency Use Authorization (EUA).

Those eligible for the EMPATHY trial are adults, over the age of 18, with a positive SARS-CoV-2 antigen test and who are experiencing at least two pre-determined mild/moderate symptoms of COVID-19 within 7 days of their diagnosis.

"Novartis remains unwavering in our efforts to help combat COVID-19, including our support to deliver treatment options for patients around the globe," said Dr. Lutz Hegemann, Group Head, Corporate Affairs and Global Health, Novartis. "Today, with Molecular Partners, we're announcing an important next step in the development of ensovibep, which holds promise to respond to breakthrough disease and new variants in the future. We are hopeful the results of this clinical trial program will provide a reliable treatment option for patients with COVID-19."

Novartis believes a multi-solution strategy is needed to overcome COVID-19, one that utilizes a range of diagnostic and therapeutic options, depending on the needs of individual patients. Every country should have access to effective medicines to treat COVID-19 and despite availability of vaccinations, there continues to be disease transmission and there is likely to continue to be breakthrough disease.

"By virtue of its tri-specific design, ensovibep was built to resist viral mutations and indeed shows potent inhibition of all variants of concern to date, with the potential to maintain activity also for future variants. This type of broad spectrum activity is essential for any treatment of relevance for patients with COVID-19," said Patrick Amstutz, Chief Executive Officer, Molecular Partners. "Reaching this important clinical milestone is not only a key step to combat this virus, but also validating our DARPin approach to generate multispecific antiviral therapies in the fight against global pandemics."

Initial findings from the Phase 1 trial of ensovibep showed it to be safe and well tolerated with no significant adverse events. Predictable exposure was seen post-administration, confirming the expected half-life of two to three weeks. These data confirmed the systemic administration of a multi-specific DARPin® antiviral therapy to be safe and well tolerated and support plans for additional clinical work in patients diagnosed with COVID-19, as part of the EMPATHY trial. The preclinical work for MP0423 is still ongoing and is being led by Molecular Partners.

Sustained binding against new variants of Covid-19

Molecular Partners, in collaboration with academic and government partners, has conducted *in vitro* experiments using pseudovirion models of SARS-CoV-2 to analyze for infectivity in the presence of ensovibep. These models represent new variants first identified in UK (B1.1.7), South Africa (B.1.351), Brazil (P.1), California (B.1.429), New York (B.1.526), emerging variants R.1 and A.23.1, the individual key mutations of the variants identified in India, B.1.617 and B.1.618, and other key spike mutations identified to date. The results suggest ensovibep continues to retain full potency against the new viral variants of SARS-CoV-2, and could have the potential for sustained binding to additional COVID-19 variants, as they may appear in the future.

Ensovibep enrollment in ACTIV-3 trial

Molecular Partners and Novartis also recently announced the inclusion of ensovibep in the NIH-Sponsored ACTIV-3 Trial (National Institute of Health's (NIH) Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) program) that aims to prioritize and push forward development of the

most promising COVID-19 therapies. ACTIV-3 is a global Phase 3 trial that will investigate the safety and efficacy of ensovibep in adults hospitalized with COVID-19, with an aim to enroll up to 1,000 patients. The first patient dose is expected to be administered in June 2021, with an interim analysis after 300 patients with mild-to-moderate disease. These patients will receive either ensovibep or a placebo. Trial participants will also receive an existing standard of care for COVID-19, including the FDA-approved antiviral remdesivir. If the treatment has a positive risk-benefit profile, the study will enroll an additional 700 patients for further testing. Ensovibep is the first non-antibody therapy assessed in ACTIV-3, supporting a different approach for COVID-19 treatment.

The collaboration with Novartis

Molecular Partners is proud to be collaborating with Novartis to develop two DARPin® therapies designed for potential use against COVID-19, ensovibep and MP0423, with an option for Novartis to in-license global rights from Molecular Partners and development responsibilities to both therapies. Novartis will also be responsible for manufacturing, distribution and commercialization of both therapies.

The development program will be led by Molecular Partners until Phase 1 is complete and will be handed over to Novartis to conduct the pivotal clinical trial EMPATHY, with Phase 2 and 3 trials, with Molecular Partners as sponsor of these trials. Molecular Partners will perform all remaining preclinical work for MP0423.

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.

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