Disc Medicine Initiates Phase 1 Clinical Study of DISC-0974, a First-In-Class Inhibitor of Hemojuvelin (HJV) in Development for the Treatment of Anemia of Inflammation

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DISC-0974 is an investigational monoclonal antibody that utilizes a novel mechanism of action to suppress hepcidin, the master regulator of iron metabolism and a key driver of anemia

CAMBRIDGE, Mass. (July 28, 2021) – Disc Medicine, a biotechnology company dedicated to the discovery and development of novel therapies for the treatment of serious and debilitating hematologic diseases, today announced the initiation of the first-in-human, Phase 1 study in healthy subjects of DISC-0974, a first-in-class inhibitor of hemojuvelin (HJV), a novel, genetically validated target for modulating iron metabolism and red blood cell formation. DISC-0974 is being developed as a potential treatment for anemia of inflammation.

“The initiation of this study marks an important milestone both for the field of anemia and in the growth of our company as we begin advancing our portfolio of first-in-class programs into the clinic,” said John Quisel, JD, PhD, Chief Executive Officer at Disc Medicine. “There is a tremendous need for innovative approaches to treat anemia and, importantly, to explore mechanisms independent of the erythropoietin pathway.”

“It has long been recognized that hepcidin is a key molecular driver of nearly all forms of chronic anemia and inhibiting this pathway would be an attractive therapeutic strategy.” said Dr. Tomas Ganz, MD, PhD, Distinguished Professor of Medicine and Pathology at the David Geffen School of Medicine at University of California, Los Angeles (UCLA). “Disc is taking the approach of suppressing the body’s production of hepcidin by inhibiting hemojuvelin, an emerging target that has been validated by human genetics to be both critical and selective to hepcidin expression. I look forward to the findings in this first study.”

Anemia of inflammation (also known as anemia of chronic disease or ACD) is the most common form of chronic anemia and has been estimated to affect over 1 billion worldwide. It occurs in patients affected by a spectrum of inflammatory conditions, including anemias caused by cancer and myeloproliferative disorders, chronic kidney disease, autoimmune diseases, chronic heart failure (CHF) and COPD. It is caused by elevated levels of hepcidin, which is induced by inflammation and restricts availability of iron for erythropoiesis. As a result, patients develop debilitating anemia that is refractory to treatment and in severe cases require chronic red blood cell (RBC) transfusions.

This Phase 1 study will be a single-ascending dose design in healthy volunteers to assess the safety and tolerability of DISC-0974 as well as to investigate the effects of inhibiting HJV on hepcidin and iron parameters. The company expects to report the findings from the Phase 1 study later this year and initiate clinical studies in anemia of myelofibrosis (MF) and other anemias of inflammation in 2022.

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About DISC-0974

DISC-0974 is an investigational, first-in-class monoclonal antibody designed to suppress hepcidin production by inhibiting the hemojuvelin (HJV) co-receptor, a highly selective and critical target of the hepcidin pathway. Hepcidin is the primary regulatory hormone of iron homeostasis and plays a central role by restricting iron absorption and preventing deployment from internal iron stores. DISC-0974 is being developed as a potential treatment for anemia of inflammation by suppressing hepcidin and enhancing iron availability for erythropoiesis. Preclinical studies of DISC-0974 and human genetic evidence validate that inhibition of HJV results in potent suppression of hepcidin and increased serum iron.

DISC-0974 is an investigational therapy that is not approved for any use in any country. Disc obtained global rights to DISC-0974 and related molecules under a license agreement from AbbVie in October 2019.

About Disc Medicine

Disc Medicine is a clinical-stage biopharmaceutical company that is dedicated to transforming the lives of patients with hematologic disorders. We are building a unique portfolio of innovative, first-in-class therapeutic candidates based on fundamental pathways of red blood cell biology. Disc Medicine is committed to building a brighter future for patients who suffer from hematologic disease, ranging from severe orphan conditions to widely prevalent diseases. For more information, please visit www.discmedicine.com.

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