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Hemogenyx Pharmaceuticals plc

("Hemogenyx Pharmaceuticals" or the "Company")

CAR-T Agreement with University of Pennsylvania

Hemogenyx Pharmaceuticals plc (LSE: HEMO), the biopharmaceutical group developing new therapies and treatments for blood diseases, is pleased to announce that it has entered into a Sponsored Research Agreement ("Agreement") with the University of Pennsylvania ("Penn"). The goal of the Agreement is to advance the Chimeric Antigen Receptor ("CAR") T-cells ("HEMO-CAR-T") developed by the Company toward clinical trials. The Agreement is envisaged as the first step of a larger program that aims to achieve clinical proof of concept for HEMO-CAR-T for the treatment of acute myeloid leukemia ("AML").

Dr. Saar Gill, Assistant Professor of Medicine, a hematologist-oncologist physician scientist and Scientific co-Director of the Cell Therapy and Transplantation program at Penn, will serve as Principal Investigator on behalf of Penn. Dr. Gill's laboratory is part of the Center for Cellular Immunotherapies ("CCI"), whose Director, Dr. Carl H. June, conducted pioneering clinical trials of genetically engineered cells including CAR-T cells in patients with HIV and diverse forms of cancer.

Dr. Vladislav Sandler, CEO & Co-Founder of Hemogenyx Pharmaceuticals, commented: *"This is a first and incredibly important step on a direct path to clinical trials for one of our leading product candidates. We are very pleased to be collaborating with the best and first institution that developed CAR-T technology into an approved and globally used treatment for leukemias, which has already saved so many lives. We are confident that this collaboration will dramatically accelerate the development of our CAR-T product candidate, which we believe will have a significant and positive impact in the treatment of acute myeloid leukemia, for which there is currently no real effective treatment."*

About AML and CAR-T Therapy

AML, the most common type of acute leukemia in adults, has poor survival rates (a five-year survival rate of less than 30% in adults) and is currently treated using chemotherapy, rather than the potentially more benign and effective form of therapy being developed by Hemogenyx Pharmaceuticals. The successful development of the new therapy for AML would have a major impact on treatment and survival rates for the disease.

CAR-T therapy is a treatment in which a patient's own T-cells, a type of immune cell, are modified to recognize and kill the patient's cancer cells. The procedure involves: isolating T-cells from the patient; modifying the isolated T-cells in a laboratory using a CAR gene construct (which allows the cells to recognize the patient's cancer); amplifying (growing to large numbers) the newly modified cells; and re-introducing the cells back into the patient.

About the Center for Cellular Immunotherapies

CCI, under the directorship of Dr. Carl H. June, is focused on coordinated interdisciplinary approaches for the discovery and development of core platform technologies for personalized cell and gene-based therapies in cancer, autoimmune disease, infectious disease, and organ and bone marrow transplantation. CCI interacts with a coalition of investigators in nearly all departments and centers in the Perelman School of Medicine, driving the clinical translation of novel and investigational immune-based therapies. CCI's mission is to accelerate and synergize efforts that quickly transition fundamental immunobiology research into the clinic.

As mentioned above, CCI and the team of Dr. June have conducted numerous clinical trials with CAR T-cells in patients with HIV infection and diverse forms of cancer. The CAR T-cells invented in the June Laboratory were awarded "Breakthrough Therapy" status by the FDA for acute lymphoblastic leukemia ("ALL") in children and adults in 2014 and lymphoma for adults in 2018. This technology has been developed for widespread use by Novartis culminating with the FDA approval of the first CAR T-cell therapy Kymriah® (tisagenlecleucel) for the treatment of ALL in 2017.

About Dr. Saar Gill and the Gill Laboratory

Saar Gill, MD, PhD, obtained his medical degree from the University of Melbourne in Australia in 1999. He underwent internal medicine training at St Vincent's Hospital in Melbourne, followed by hematology training at the Peter MacCallum Cancer Centre and at the Royal Melbourne Hospital, which he completed in 2008. In 2008 he became a post-doctoral fellow at the laboratory of Robert Negrin at Stanford University, where he studied adoptive cellular therapy with NK cells. In 2011 Dr. Gill moved to the University of Pennsylvania where he did a BMT and Cellular Therapy fellowship under Dr. David Porter, and started working in the laboratory with Dr. Michael Kalos and Carl June on chimeric antigen receptor T-cells for the treatment of AML. Since 2013 the Gill Laboratory has focused on CAR-T cells for the treatment of AML.

Market Abuse Regulation (MAR) Disclosure

Certain information contained in this announcement would have been deemed inside information for the purposes of Article 7 of Regulation No 596/2014 until the release of this announcement.

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About Hemogenyx Pharmaceuticals plc

Hemogenyx Pharmaceuticals plc is a publicly traded company (LSE: HEMO) headquartered in London, with its US operating subsidiaries, Hemogenyx LLC and Immugenyx LLC, located in New York City at its state-of-the-art research facility.

Hemogenyx Pharmaceuticals plc is a pre-clinical stage biopharmaceutical group developing new medicines and treatments to bring the curative power of bone marrow transplantation to a greater number of patients suffering from otherwise incurable life-threatening diseases. The Company is developing several distinct and complementary product candidates, as well as a platform technology that it uses as an engine for novel product development.

For more than 50 years, bone marrow transplantation has been used to save the lives of patients suffering from blood diseases. The risks of toxicity and death that are associated with bone marrow transplantation, however, have meant that the procedure is restricted to use only as a last resort. Hemogenyx Pharmaceuticals' technology has the potential to enable many more patients suffering from devastating blood diseases such as leukemia and lymphoma, as well as severe autoimmune diseases such as multiple sclerosis, aplastic anemia and systemic lupus erythematosus (Lupus), to benefit from bone marrow transplantation.