Magenta Therapeutics Presents Final Phase 1 Results of MGTA-145 Stem Cell Mobilization Clinical Trial and Preclinical Data from Targeted Conditioning Program at the European Society for Blood and Marrow Transplantation (EBMT) 2021 Annual Meeting

March 15, 2021

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Mar. 15, 2021-- **Magenta Therapeutics** (NASDAQ: MGTA), a clinical-stage biotechnology company developing novel medicines to bring the curative power of stem cell transplants to more patients, today announced availability of data presentations across its stem cell mobilization and targeted conditioning programs at the European Society for Blood and Marrow Transplantation (EBMT) 2021 annual meeting, held virtually March 14-17, 2021.

“The EBMT Annual Meeting is one of the most important gatherings of global scientific and medical experts in the field of stem cell transplantation and cellular therapy and a key opportunity for Magenta to highlight our findings in our mobilization and conditioning programs,” said John Davis Jr., M.D., M.P.H., M.S., Magenta’s Head of Research & Development and Chief Medical Officer. “We are encouraged and excited by the advances we are making at Magenta and across the entire field, and what that means for the patients we seek to serve.”

Oral Presentation of Final Phase 1 MGTA-145 Stem Cell Mobilization Program

Magenta is developing MGTA-145 plus plerixafor to harness these agents’ complementary mechanisms to mobilize hematopoietic stem cells (HSCs) for collection and transplantation, including for use with gene therapies. The ability to provide rapid, reliable, predictable and safe mobilization and collection of HSCs in stem cell transplantation could position MGTA-145 plus plerixafor to be the preferred mobilization regimen across multiple diseases due to improved patient experience and collection outcomes.

Title: MGTA-145, In Combination with Plerixafor in a Phase 1 Clinical Study, Mobilizes Large Numbers of Hematopoietic Stem Cells and a Graft with Potent Immunosuppressive Properties (Oral Presentation, OS1-1)
Presenting Author: Kevin Goncalves, Ph.D., Magenta Therapeutics
To view: OS1 Oral Session 1: Hematopoietic Stem Cells, Mobilization and Engineering; held Sunday, March 14, and currently available on-demand via the conference’s website

Data from this Phase 1 clinical trial with healthy volunteers further underscore the potential utility of MGTA-145 plus plerixafor as an effective, single-day mobilization and collection regimen for autologous and allogeneic HSC transplant. MGTA-145 plus plerixafor rapidly mobilized large numbers of HSCs and showed durable engraftment, successful gene-modification and immunosuppressive properties by reducing Graft-versus-Host disease (GvHD) in preclinical models. This abstract is an encore presentation by the Company.

This abstract was selected as one of 10 of the conference’s “Best Young Abstracts,” honoring top-scored abstracts submitted by those under 35 years of age. The awards will be presented during the Poster Session, Tuesday, March 16 at 6:00pm CET.

Poster Presentation of a Preclinical Study of MGTA-117 Targeted ADC Conditioning Program

Magenta is developing a platform of novel antibody-drug conjugates (ADCs) for conditioning, a step in the transplant process that currently relies on the use of systemic chemotherapy agents and radiation. Magenta’s targeted conditioning programs are designed to selectively eliminate stem cells and/or immune cells from a patient prior to stem cell transplant or gene therapy. The conditioning ADCs have the potential to reduce or eliminate the need for high dose or high intensity chemotherapy-based conditioning regimens.

MGTA-117, Magenta’s most advanced conditioning program, is a CD117-targeted antibody conjugated to amanitin and intended for use in patients undergoing transplant or gene therapy. MGTA-117 is designed to deplete hematopoietic stem cells and clear space in the bone marrow prior to transplant to enable long-term engraftment and improved disease outcomes in patients. MGTA-117 has shown high selectivity, potent efficacy and tolerability in multiple preclinical studies.

The Company expects to file an Investigational New Drug (IND) application for MGTA-117 in mid-2021, and, upon acceptance of the IND by the U.S. FDA, Magenta plans to initiate a Phase 1/2 clinical trial to evaluate MGTA-117 in patients with acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS), with initial safety and pharmacokinetic data available for internal assessment by Q4 2021. These initial data are expected to be directional for the Company’s dose escalation plans.

Title: A Novel Short Half-life Anti-Human CD117-Amanitin ADC Exhibits Dual HSCT Conditioning and Anti-Leukemia Activity and Extends Survival in Multiple Preclinical Models of AML (Abstract #P197)
Author: Leanne Lanieri, M.S., Magenta Therapeutics
To view: Available in the ePoster area of the virtual event

Hematopoietic stem cell transplant (HSCT) can often be a curative treatment for patients with AML. There is currently a need for safer and more effective targeted conditioning agents, as current conditioning regimens are associated with severe toxicities and high post-transplant relapse or graft failure. MGTA-117 was studied in multiple human leukemic xenograft murine models to mimic untreated and refractory AML. In preclinical models, MGTA-117 significantly increased median survival versus a multi-day treatment of cytarabine, the clinical comparator. This abstract is an encore presentation by the Company.

About Magenta Therapeutics

Magenta Therapeutics is a clinical-stage biotechnology company developing medicines to bring the curative power of immune system reset through stem cell transplant to more patients with blood cancers, genetic diseases and autoimmune diseases. Magenta is combining leadership in stem cell

biology and biotherapeutics development with clinical and regulatory expertise, a unique business model and broad networks in the stem cell transplant community to revolutionize immune reset for more patients.

Magenta is based in Cambridge, Mass. For more information, please visit **www.magentatx.com**.

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