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Mustang Bio Announces MB-107 Lentiviral Gene Therapy and MB-106 CD20-Targeted CAR T Data Selected for Presentations at 61st American Society of Hematology Annual Meeting

St. Jude Children's Research Hospital and the National Institutes of Health to present updated MB-107 clinical data for the treatment of X-linked severe combined immunodeficiency

Fred Hutchinson Cancer Research Center to present overview of ongoing MB-106 Phase 1/2 clinical trial

NEW YORK, Nov. 06, 2019 (GLOBE NEWSWIRE) -- Mustang Bio, Inc. ("Mustang") (NASDAQ: MBIO), a clinical-stage biopharmaceutical company focused on translating today's medical breakthroughs in cell and gene therapies into potential cures for hematologic cancers, solid tumors and rare genetic diseases, announced today that updated Phase 1/2 clinical data for MB-107 lentiviral gene therapy for X-linked severe combined immunodeficiency (XSCID) have been selected for oral and poster presentations at the 61st American Society of Hematology (ASH) Annual Meeting. ASH will be held December 7-10, 2019, at the Orange County Convention Center in Orlando, FL.

MB-107 is currently being assessed in two Phase 1/2 clinical trials for XSCID: the first in newly diagnosed infants under the age of two at St. Jude Children's Research Hospital, UCSF Benioff Children's Hospital and Seattle Children's Hospital and the second in patients over the age of two who have received prior hematopoietic stem cell transplantation at the National Institutes of Health. Positive Phase 1/2 clinical data from the trial for infants under the age of two were published in the *New England Journal of Medicine* in April 2019 and positive Phase 1/2 clinical data from the trial in patients over the age of two were published in *Science Translational Medicine* in April 2016. The U.S. Food and Drug Administration (FDA) granted Regenerative Medicine Advanced Therapy (RMAT) designation to MB-107 for the treatment of XSCID in August 2019.

Manuel Litchman, M.D., President and Chief Executive Officer of Mustang, said, "We are extremely pleased that additional clinical data on MB-107, a lentiviral gene therapy for the treatment of XSCID, will be presented in oral and poster sessions at the 2019 ASH Annual

Meeting. The curative potential of MB-107 based on previously announced compelling Phase 1/2 data is impressive, and we look forward to working with St. Jude and NIH to advance the development of this important treatment option."

Details of the MB-107 presentations are as follows.

Oral Presentation:
Title: Enhanced Transduction Lentivector Gene Therapy for Treatment of Older Patients with X-Linked Severe Combined Immunodeficiency
Session: 801. Gene Therapy and Transfer: Gene Therapies for Non-Malignant Disorders
Abstract Number: 608
Date and Time: Monday, December 9, 2019, 7:15 a.m. ET
Location: Orange County Convention Center, Valencia BC (W415BC)
Presenter: Harry Malech, M.D., Laboratory of Clinical Immunology and Microbiology, NIAID, NIH, Bethesda, MD, USA

Poster Presentation:
Title: Lentiviral Gene Therapy with Low Dose Busulfan for Infants with X-SCID Results in the Development of a Functional Normal Immune System: Interim Results of an Ongoing Phase I/II Clinical Study
Session: 801. Gene Therapy and Transfer: Poster I
Abstract Number: 2058
Date and Time: Saturday, December 7, 2019, 5:30-7:30 p.m. ET
Location: Orange County Convention Center, Hall B
Presenter: Ewelina Mamcarz, M.D., Department of Bone Marrow Transplantation and Cellular Therapy, St. Jude Children's Research Hospital, Memphis, TN, USA

In addition, Mustang's collaborator Fred Hutchinson Cancer Research Center will present a poster about the ongoing Phase 1/2 clinical trial investigating the safety and efficacy of MB-106 CD20-targeted CAR T for high-risk B-cell non-Hodgkin lymphomas.

Details of the MB-106 presentation are as follows.

Poster Presentation:
Title: CD20 Targeted CAR-T for High-Risk B-Cell Non-Hodgkin Lymphomas
Session: 704. Immunotherapies: Poster II
Abstract Number: 3235
Date and Time: Sunday, December 8, 2019, 6-8 p.m. ET
Location: Orange County Convention Center, Hall B
Presenter: Mazyar Shadman, M.D., M.P.H., Fred Hutchinson Cancer Research Center, Seattle, WA, USA

Copies of the abstracts can be viewed online through the ASH website at www.hematology.org.

About Mustang Bio
Mustang Bio, Inc. ("Mustang") is a clinical-stage biopharmaceutical company focused on translating today's medical breakthroughs in cell and gene therapies into potential cures for hematologic cancers, solid tumors and rare genetic diseases. Mustang aims to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest, to fund

research and development, and to outlicense or bring the technologies to market. Mustang has partnered with top medical institutions to advance the development of CAR T and CRISPR/Cas9-enhanced CAR T therapies across multiple cancers, as well as a lentiviral gene therapy for XSCID. Mustang is registered under the Securities Exchange Act of 1934, as amended, and files periodic reports with the U.S. Securities and Exchange Commission. Mustang was founded by Fortress Biotech, Inc. (NASDAQ: FBIO). For more information, visit www.mustangbio.com.

Forward-Looking Statements

This press release may contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, each as amended. Such statements include, but are not limited to, any statements relating to our growth strategy and product development programs and any other statements that are not historical facts. Forward-looking statements are based on management's current expectations and are subject to risks and uncertainties that could negatively affect our business, operating results, financial condition and stock value. Factors that could cause actual results to differ materially from those currently anticipated include: risks relating to our growth strategy; our ability to obtain, perform under and maintain financing and strategic agreements and relationships; risks relating to the results of research and development activities; risks relating to the timing of starting and completing clinical trials; uncertainties relating to preclinical and clinical testing; our dependence on third-party suppliers; our ability to attract, integrate and retain key personnel; the early stage of products under development; our need for substantial additional funds; government regulation; patent and intellectual property matters; competition; as well as other risks described in our SEC filings. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations or any changes in events, conditions or circumstances on which any such statement is based, except as required by law.

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