August 12, 2021

Mustang Bio Collaborates with Mayo Clinic on Novel CAR T Technology

The exclusively licensed platform has potential application for any tumor target

Preclinical development to continue at Mayo Clinic

Mustang to file IND upon identification of a lead CAR construct

WORCESTER, Mass., Aug. 12, 2021 (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, today announced that the company has executed an exclusive license agreement with Mayo Clinic for a novel technology that may be able to transform the administration of chimeric antigen receptor engineered T cell ("CAR T") therapies and potentially be used as an off-the-shelf therapy.

The technology, developed by Larry R. Pease, Ph.D., principal investigator and former director of the Center for Immunology and Immune Therapies at Mayo Clinic, is a new platform to administer CAR T therapy using a two-step approach. First, a peptide is administered to the patient to drive the proliferation of the patient's resident T cells. This is followed by the administration of a viral CAR construct directly into the lymph nodes of the patient. In turn, the viral construct infects the activated T cells and effectively forms CAR T cells *in vivo* in the patient. Successful implementation may lead to an off-the-shelf product with no need to isolate and expand patient T cells *ex vivo*.

"We are excited by the possibilities that this novel technology has to offer given our ongoing development of CAR T cell therapies in hematologic and solid tumor cancers," said Manuel Litchman, M.D., President and Chief Executive Officer of Mustang. "The potential use of this technology to facilitate how these treatments are delivered to patients can lead to earlier treatment post diagnosis, and using an off-the-shelf therapy may reduce the cost of care, all of which would help bring more innovative treatments to a broader base of patients in need."

Preclinical proof-of-concept has been established and the ongoing development of this technology will take place at Mayo Clinic.

"The immune cells are activated *in vivo* using the natural methods employed by the body to deal with infection rather than the artificial activation used to manufacture traditional CAR T cells *ex vivo*," said Dr. Pease. "This could potentially reduce the substantial toxicities that are

characteristic of traditional CAR T therapy."

Mustang plans to file an Investigational New Drug ("IND") application for a multicenter Phase 1 clinical trial once a lead construct has been identified.

Mayo Clinic and Dr. Pease have financial interest in the technology referenced in this announcement. Mayo Clinic will use any revenue it receives to support its not-for-profit mission in patient care, education and research.

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 therapies across multiple cancers, as well as a lentiviral gene therapy for X-linked severe combined immunodeficiency. Mustang is registered under the Securities Exchange Act of 1934, as amended, and files periodic reports with the U.S. Securities and Exchange Commission ("SEC"). 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, and we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

Company Contacts:
Jaclyn Jaffe and Bill Begien
Mustang Bio, Inc.
(781) 652-4500
ir@mustangbio.com

Investor Relations Contact:
Daniel Ferry
LifeSci Advisors, LLC
(617) 430-7576
daniel@lifesciadvisors.com

Media Relations Contact:
Tony Plohoros
6 Degrees
(908) 591-2839
tplohoros@6degreespr.com

Source: Mustang Bio, Inc.