Precision BioSciences to Highlight Capabilities of ARCUS Gene Editing for Allogeneic CAR T Cell Immunotherapies at The Society for Immunotherapy of Cancer 36th Annual Meeting

November 9, 2021

DURHAM, N.C.--(BUSINESS WIRE)--Nov. 9, 2021--

Precision BioSciences, Inc. (Nasdaq: DTIL), a clinical stage biotechnology company using its ARCUS® genome editing platform to develop allogeneic CAR T and *in vivo* gene editing therapies, today announced that the abstract titled, "Allogeneic CAR T cells with Deoxycytidine Kinase Knockdown Demonstrate Resistance to Fludarabine" has been accepted for poster presentation at the Society for Immunotherapy of Cancer (SITC) 36th Annual Meeting taking place November 10 – 14, 2021 in Washington, D.C.

Abstract/Poster Details:

Abstract Number & Title: Abstract #140. Allogeneic CAR T cells with Deoxycytidine Kinase Knockdown Demonstrate Resistance to Fludarabine
Category: Cellular Therapies
Authors: Michelle B. Pires, M.S., and Aaron J. Martin, Ph.D., both of Precision BioSciences

Abstracts for the SITC 36th Annual Meeting are now available on the SITC Annual Meeting website and in the *Journal for ImmunoTherapy of Cancer* (JITC). This abstract will be presented as an electronic poster that will be displayed on the SITC 2021 virtual meeting platform from 7 AM EST on Friday, November 12, 2021 until the virtual meeting platform is closed on January 9, 2022.

In this preclinical study, ARCUS gene editing was used to disrupt the endogenous T cell receptor by inserting a transgene carrying a CD19-specific CAR and an RNAi sequence designed to specifically knockdown deoxycytidine kinase (dCK), a protein that converts fludarabine from its prodrug form to an active compound. This single-step approach generated allogeneic, fludarabine-resistant (FluR) CAR T cells. In these cells, the dCK RNAi sequence produced a 70% reduction in dCK mRNA abundance, and resistance to fludarabine was confirmed *in vitro*. Additionally, treatment of tumor-bearing mice with fludarabine and FluR CAR T cells resulted in enhanced tumor clearance and survival compared to mice receiving control CAR T cells alone or control CAR T cells and fludarabine.

About Precision BioSciences, Inc.

Precision BioSciences, Inc. is a clinical stage biotechnology company dedicated to improving life (DTIL) with its novel and proprietary ARCUS® genome editing platform. ARCUS is a highly specific and versatile genome editing platform designed with therapeutic safety, delivery, and control in mind. Using ARCUS, the Company's pipeline consists of multiple "off-the-shelf" CAR T immunotherapy clinical candidates and several *in vivo* gene editing candidates designed to cure genetic and infectious diseases where no adequate treatments exist. For more information about Precision BioSciences, please visit www.precisionbiosciences.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including, without limitation, statements regarding our clinical development pipeline and the potential of ARCUS and our product candidates. In some cases, you can identify forward-looking statements by terms such as "aim," "anticipate," "believe," "could," "expect," "should," "plan," "intend," "estimate," "target," "mission," "goal," "may," "will," "would," "should," "could," "target," "potential," "project," "predict," "contemplate," "potential," or the negative thereof and similar words and expressions. Forward-looking statements are based on management's current expectations, beliefs and assumptions and on information currently available to us. Such statements are subject to a number of known and unknown risks, uncertainties and assumptions, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various important factors, including, but not limited to: our ability to become profitable; our ability to procure sufficient funding and requirements under our current debt instruments and effects of restrictions thereunder; risks associated with raising additional capital; our operating expenses and our ability to predict what those expenses will be; our limited operating history; the success of our programs and product candidates in which we expend our resources; our limited ability or inability to assess the safety and efficacy of our product candidates; our dependence on our ARCUS technology; the initiation, cost, timing, progress, achievement of milestones and results of research and development activities, preclinical or greenhouse studies and clinical or field trials; public perception about genome editing technology and its applications; competition in the genome editing, biopharmaceutical, biotechnology and agricultural biotechnology fields; our or our collaborators' ability to identify, develop and commercialize product candidates; pending and potential liability lawsuits and penalties against us or our collaborators related to our technology and our product candidates; the U.S. and foreign regulatory landscape applicable to our and our collaborators' development of product candidates; our or our collaborators' ability to obtain and maintain regulatory approval of our product candidates, and any related restrictions, limitations and/or warnings in the label of an approved product candidate; our or our collaborators' ability to advance product candidates into, and successfully design, implement and complete, clinical or field trials; potential manufacturing problems associated with the development or commercialization of any of our product candidates; our ability to obtain an adequate supply of T cells from qualified donors; our ability to achieve our anticipated operating efficiencies at our manufacturing facility; delays or difficulties in our and our collaborators' ability to enroll patients; changes in interim "top-line" and initial data that we announce or publish; if our product candidates do not work as intended or cause undesirable side effects; risks associated with applicable healthcare, data protection, privacy and security

regulations and our compliance therewith; the rate and degree of market acceptance of any of our product candidates; the success of our existing collaboration agreements, and our ability to enter into new collaboration arrangements; our current and future relationships with and reliance on third parties including suppliers and manufacturers; our ability to obtain and maintain intellectual property protection for our technology and any of our product candidates; potential litigation relating to infringement or misappropriation of intellectual property rights; our ability to effectively manage the growth of our operations; our ability to attract, retain, and motivate key executives and personnel; market and economic conditions; effects of system failures and security breaches; effects of natural and manmade disasters, public health emergencies and other natural catastrophic events effects of the outbreak of COVID-19, or any pandemic, epidemic or outbreak of an infectious disease; insurance expenses and exposure to uninsured liabilities; effects of tax rules; risks related to ownership of our common stock and other important factors discussed under the caption “Risk Factors” in our Quarterly report on Form 10-Q for the quarterly period ended June 30, 2021, as any such factors may be updated from time to time in our other filings with the SEC, which are accessible on the SEC’s website at **www.sec.gov** and the Investors & Media page of our website at **investor.precisionbiosciences.com**.

All forward-looking statements speak only as of the date of this press release and, except as required by applicable law, we have no obligation to update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

View source version on businesswire.com: https://www.businesswire.com/news/home/20211109005862/en/

Investor Contact:
Alex Kelly
Chief Financial Officer
Alex.Kelly@precisionbiosciences.com

Media Contact:
Maurissa Messier
Senior Director, Corporate Communications
Maurissa.Messier@precisionbiosciences.com

Source: Precision BioSciences, Inc.