

Precision BioSciences to Present Preclinical Gene Editing Data on its ARCUS-Based Chronic Hepatitis B Program at the HEP DART 2021 Conference

December 3, 2021

DURHAM, N.C.--(BUSINESS WIRE)--Dec. 3, 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 it will present preclinical data for its chronic hepatitis B virus (HBV) program at the HEP DART 2021 conference taking place in Cabo San Lucas, Mexico, December 5 – 9, 2021.

Presentation Details:

Abstract Number and Title: Abstract #03. Targeting Hepatitis B cccDNA with a Sequence-Specific ARCUS Nuclease to Eliminate Hepatitis B Virus In

Vivo

Oral Presentation: Monday, December 6, 2021 at 11:25 AM ET

Poster Reception: Tuesday, December 7, 2021 from 3:00 PM ET to 5:00 PM ET

Abstracts for the HEP DART 2021 Meeting are available on the conference web site, at https://static1.squarespace.com/static/5c912d7af8135a45d18dd805/t/61aa80a73f24a36f20f71eca/1638564010806/hepdart-2021-abstract-book-final%5B26%5D.pdf.

"Current standard-of-care treatments for chronic hepatitis B work by lowering or suppressing the amount of hepatitis B virus found in infected cells in the body, rarely clearing the virus fully and leaving behind a DNA template for HBV to replicate," said Derek Jantz, Ph.D., Co-Founder and Chief Scientific Officer of Precision BioSciences. "At HEP DART 2021, we are pleased to share preclinical research illustrating how our ARCUS gene editing technology edited and degraded the covalently closed circular DNA, or cccDNA, responsible for HBV replication and virus persistence. We look forward to building on this research with our PBGENE-HBV gene editing candidate to pursue a potential one-time, permanent treatment for chronic hepatitis B and expect to submit an IND application or CTA in 2024."

In this preclinical study, ARCUS efficiently targeted and degraded HBV cccDNA and reduced expression of HBV s-antigen (HBsAg) by 77% in HBV-infected primary human hepatocytes. To evaluate ARCUS *in vivo*, mouse and non-human primate models were developed that utilized an episomal adeno-associated virus (AAV) containing a portion of the HBV genome to serve as a surrogate for cccDNA. In both episomal models, a robust decrease in AAV copy number and high on-target editing in remaining AAV was observed, and a durable 96% reduction of HBsAg was further observed in mice.

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 that was 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 the clinical development of our product candidates, including the clinical development, timeline and potential safety and efficacy of PBGENE-HBV and the expected timing of future IND/CTA filings. 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 September 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 page of our website under Events & Presentations 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.

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