Precision BioSciences Receives Pre-IND Feedback from US FDA for PBGENE-HBV as it Advances Towards Clinical Readiness

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- Regulatory feedback and alignment from both U.S. and ex-U.S. regulators supports clinical development path for PBGENE-HBV

- IND/CTA enabling studies with final clinical candidate underway for PBGENE-HBV program; expect to file IND and/or CTA in 2024

- Expected to be the first and only potentially curative gene editing program to enter the clinic that is specifically designed to eliminate cccDNA and inactivate integrated HBV DNA

DURHAM, N.C.--(BUSINESS WIRE)--Feb. 14, 2024--

Precision BioSciences, Inc. (Nasdaq: DTIL), an advanced gene editing company utilizing its novel proprietary ARCUS® platform to develop *in vivo* gene editing therapies for sophisticated gene edits, including gene insertion, excision, and elimination, today announced that the company has received pre-IND regulatory feedback from the U.S. Food and Drug Administration (FDA) and ex-U.S. agencies. Receipt of this regulatory feedback provides alignment and clarity on Precision's final IND/CTA-enabling preclinical plans and clinical strategy for PBGENE-HBV prior to advancement into Phase 1 clinical studies.

"We believe the regulatory feedback we have received to date informs and strengthens our clinical strategy and provides a clear pathway towards an IND and/or CTA filing for our lead gene editing program PBGENE-HBV," said Michael Amoroso, President and Chief Executive Officer at Precision BioSciences. "Based on this feedback, we have initiated the final preclinical studies as well as site selection efforts as we move towards clinical readiness. We look forward to filing regulatory applications in 2024 and continue to believe that PBGENE-HBV has the potential to achieve a functional cure for patients suffering with Chronic Hepatitis B."

The pre-IND meeting with FDA provided feedback on overall design for the proposed first-in-human clinical study as well as feedback on the toxicology and specificity assessments. This interaction builds on the engagement and alignment achieved through early scientific advice during the FDA INTERACT meeting in July 2023. Similar, productive consultations have been held with regulators in ex-U.S. countries.

Collectively, the feedback and overall alignment obtained from multiple regulatory authorities validates Precision's path towards a planned IND and/or CTA filing for PBGENE-HBV in 2024. Precision is committed to rapidly advancing PBGENE-HBV into a global clinical Phase 1 study and is currently expanding site selection efforts with specialized centers focused on the treatment of Chronic Hepatitis B in several countries. Simultaneously, manufacturing is proceeding to supply drug for all planned nonclinical and clinical activities.

PBGENE-HBV is expected to be the first and only potentially curative gene editing program to enter the clinic that is specifically designed to eliminate cccDNA and inactivate integrated HBV DNA.

"Current treatment options for patients with HBV are unable to both eliminate cccDNA and inactivate HBsAg expression from integrated HBV DNA genomes in the hepatocyte, which is essential to drive a durable loss of viral markers and potentially achieve a functional cure for patients with HBV," said Dr. Geoffrey Dusheiko, MD, FCP(SA), FRCS. Emeritus Professor of Medicine, King's College Hospital & University College London. "Given the constructive feedback from the FDA and other regulatory agencies worldwide, I look forward to seeing this novel modality progressing to further assessment in the clinic."

About Hepatitis B and PBGENE-HBV:

Hepatitis B is a leading cause of morbidity in the US and death globally, with no curative options currently available for patients. In 2019, despite the availability of approved antiviral therapies, an estimated 300 million people globally and more than 1 million people in the US were estimated to have chronic hepatitis B infection. An estimated 15% to 40% of patients with HBV infections may develop complications, such as cirrhosis, liver failure, or liver cancer (hepatocellular carcinoma), which account for the majority of HBV-related deaths.

Chronic hepatitis B infection is primarily driven by persistence of HBV cccDNA and integration of HBV DNA into the human genome in liver cells, the primary source of HBsAg in late-stage disease. Current treatments for patients with HBV infection include agents that result in long-term viral suppression as indicated by reduction of circulating HBV DNA, but these therapies do not eradicate HBV cccDNA, rarely lead to functional cure, and require lifelong administration. PBGENE-HBV is a highly specific, novel therapeutic approach to treating patients with chronic HBV infection. It's designed to directly eliminate cccDNA and inactivate integrated HBV DNA with high specificity, resulting in degraded cccDNA and a reduction in HBsAg.

About ARCUS

ARCUS is a proprietary genome editing technology discovered and developed by scientists at Precision BioSciences. It uses sequence-specific DNA-cutting enzymes, or nucleases, that are designed to either insert, excise, or eliminate DNA of living cells and organisms. ARCUS is based on a naturally occurring genome editing enzyme, I-CreI, that evolved in the algae *Chlamydomonas reinhardtii* to make highly specific cuts in cellular DNA and stimulate gene insertion at the cut site by homologous recombination. Precision's platform and products are protected by a comprehensive

portfolio including more than 130 granted patents to date.

About Precision BioSciences, Inc.

Precision BioSciences, Inc. is an advanced gene editing company dedicated to improving life (DTIL) with its novel and proprietary ARCUS® genome editing platform that differs from other technologies in the way it cuts, its smaller size, and its simpler structure. Key capabilities and differentiating characteristics may enable ARCUS nucleases to drive more intended, defined therapeutic outcomes. Using ARCUS, the Company's pipeline is comprised of *in vivo* gene editing candidates designed to deliver lasting cures for the broadest range of 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. The Company intends such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. 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 and expected safety, efficacy and benefit of our product candidates and gene editing approaches including ARCUS's potential editing efficiency and differentiating aspects and the ability for the ARCUS genome editing platform to develop differentiated programs; the suitability of ARCUS nucleases for gene or viral elimination, large excision, gene insertion, and other complex gene editing approaches to drive defined outcomes; the potential of PBGENE-HBV to durably achieve a near-complete reduction across viral markers including HBsAg, HBeAg, HBV DNA and HBV RNA and as a potentially curative treatment for HBV with no off-target editing at maximal on-target editing dose; and the expected timing of manufacturing activities and regulatory processes, including timing of expected CTA and/or IND filings. The words "aim," "anticipate," "approach," "believe," "contemplate," "could," "designed", "estimate," "expect," "goal," "intend," "look," "may," "mission," "plan," "possible," "potential," "predict," "project," "promise," "pursue," "should," "target," "will," "would," and other similar words or expressions, or the negative of these words or similar words or expressions, are intended to identify forward-looking statements, though not all forward-looking statements use these words or expressions.

Forward-looking statements are based on management's current expectations, beliefs and assumptions and on information currently available to us. These statements are neither promises nor guarantees, but involve 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 to advance our programs; risks associated with raising additional capital and requirements under our current debt instruments and effects of restrictions thereunder; 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 risk that other genome-editing technologies may provide significant advantages over our ARCUS technology; the initiation, cost, timing, progress, achievement of milestones and results of research and development activities, preclinical studies and clinical trials; public perception about genome editing technology and its applications; competition in the genome editing, biopharmaceutical, and biotechnology fields; our or our collaborators' ability to identify, develop and commercialize product candidates; potential product 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' or other licensees' ability to advance product candidates into, and successfully design, implement and complete, clinical or field trials; our or our collaborators' other licensees' 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; 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 sustained inflation, supply chain disruptions and major central bank policy actions; insurance expenses and exposure to uninsured liabilities; effects of tax rules; risks related to ownership of our common stock; our ability to meet the requirements of and maintain listing of our common stock on NASDAQ or other public stock exchanges 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, 2023, 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 SEC Filings 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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