Precision BioSciences Announces Clearance of Investigational New Drug Application by the U.S. FDA for First-in-Class PBGENE-HBV Designed to Eliminate Root Cause of Chronic Hepatitis B

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- PBGENE-HBV is the first-ever investigational in vivo gene editing therapy cleared to enter clinical trials for the treatment of chronic hepatitis B in the United States (U.S.) –

- IND clearance represents a significant regulatory milestone for PBGENE-HBV –

- Company to expand its Phase 1 ELIMINATE-B study to the U.S., joining world-class clinical sites in Moldova, Hong Kong, and New Zealand where strong clinical execution is currently underway –

DURHAM, N.C.--(BUSINESS WIRE)--Mar. 17, 2025-- Precision BioSciences, Inc. (Nasdaq: DTIL), a clinical stage gene editing company utilizing its novel proprietary ARCUS® platform to develop *in vivo* gene editing therapies for high unmet need diseases, today announced that the U.S. Food and Drug Administration (FDA) has cleared the Investigational New Drug (IND) application for PBGENE-HBV. PBGENE-HBV is Precision's lead wholly owned *in vivo* gene editing program designed to cure chronic hepatitis B by eliminating cccDNA, the key source of replicating hepatitis B virus (HBV), and inactivating integrated HBV DNA in hepatocytes. Precision is in final stages of U.S. site activation, enabling the ELIMINATE-B trial to begin enrolling patients in the U.S. where over one million people are infected with chronic hepatitis B. The ELIMINATE-B trial is actively enrolling patients in Moldova, Hong Kong, and New Zealand and will soon initiate Phase 1 clinical activities in the U.S at the Liver Center at Massachusetts General Hospital. The Company recently announced promising safety and efficacy data for PBGENE-HBV following first dose administration at the lowest dose level in the ELIMINATE-B clinical trial.

"IND clearance to expand the ELIMINATE-B trial for chronic hepatitis B is a first for the gene editing space. This marks the advancement of potentially curative gene editing modalities into major markets for diseases where enormous global disease burden and lack of curative options have unfortunately become the norm," said Michael Amoroso, President and Chief Executive Officer of Precision BioSciences. "With four regulatory approvals in four months, this clearance validates our parallel global development strategy backed by our robust pre-clinical safety and efficacy package**.** The ELIMINATE-B trial remains on track following the recent completion of initial dose administration in our first cohort of patients and we look forward to continuing to share clinical data throughout 2025."

"The IND clearance milestone marks a significant step forward in our mission to advance potential curative treatment options for hepatitis B patients," said Murray A. Abramson, MD, MPH, Head of Clinical Development at Precision BioSciences. "We're very excited to extend the ELIMINATE-B trial to the U.S. and look forward to working with the investigators in the U.S., alongside those in Moldova, Hong Kong and New Zealand as we build on the momentum of the ELIMINATE-B phase 1 study."

Investigators in the ELIMINATE-B trial accrued the first cohort of patients within the first month of open enrollment and are currently administering additional doses to patients in Cohort 1 at the same dose level (0.2 mg/kg). In addition, the Company expects to escalate to a higher dose level in Cohort 2 with the goal to define the optimal dose and number of dose administrations for safely eliminating cccDNA and inactivating integrated HBV DNA. Precision plans to further expand the study to the U.K. and continue accelerating recruitment and evaluation of a genetically diverse patient population in the Phase 1 study. Precision plans to share detailed clinical data throughout 2025.

"Hepatitis B has a significant impact on the lives of people living with hepatitis B in the U.S. and many countries throughout the world. Millions of people are eager for new treatment approaches that can help reduce the burden of hepatitis B which includes liver damage, liver cancer, premature death and social stigma. In the U.S. alone there up to 2.4 million people living with chronic hepatitis B, and despite vaccinations and continued medical developments, the numbers haven't changed appreciably over the past 15 years," said Chari A. Cohen, DrPH, MPH, Hepatitis B Foundation President.

About Hepatitis B:

Hepatitis B is a leading cause of morbidity in the US and death globally, with no curative options currently available for patients. Despite the availability of approved antiviral therapies, an estimated 300 million people globally and 1-2 million people in the US are 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 hepatitis B surface antigen (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.

About PBGENE-HBV (Viral Elimination Program):

PBGENE-HBV is Precision's wholly owned in vivo gene editing program under investigation in a global first-in-human clinical trial, which is designed to potentially cure chronic hepatitis B virus (HBV) infection. Currently, it is estimated that 300 million people worldwide are afflicted with chronic hepatitis

B. PBGENE-HBV is the first and only potentially curative gene editing program to enter clinical investigation that is specifically designed to eliminate cccDNA and inactivate integrated HBV DNA. Lipid nanoparticle technology for PBGENE-HBV has been provided by Acuitas Therapeutics Inc.

About Precision BioSciences, Inc.

Precision BioSciences, Inc. is a clinical stage 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.

The ARCUS® platform is being used to develop in vivo gene editing therapies for sophisticated gene edits, including gene insertion (inserting DNA into gene to cause expression/add function), elimination (removing a genome e.g. viral DNA or mutant mitochondrial DNA), and excision (removing a large portion of a defective gene by delivering two ARCUS nucleases in a single AAV).

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 safety profile and substantial antiviral activity established after the first administration at dose level 1 of PBGENE-HBV; the clinical development and demonstrated, potential and expected safety, efficacy and benefit of PBGENE-HBV, our other product candidates and those being developed by partners; the unique design of PBGENE-HBV to eliminate cccDNA and inactivate integrated HBV DNA with high specificity, potentially leading to functional cures; the expected timing of regulatory processes (including filings such as IND's and CTAs and studies for PBGENE-HBV and the acceptance of these filings by regulatory agencies); the suitability of PBGENE-HBV for the treatment of hepatitis and the targeting of the root cause of the disease; the key advantages of ARCUS and its key capabilities and differentiating characteristics ; expectations about operational initiatives, strategies, and further development of PBGENE-HBV; plans to provide additional administrations of PBGENE-HBV at the first dose level; plans to escalate to higher dose levels and next cohorts in the ELIMINATE-B clinical trial to define the optimal dose and number of dose administrations for safely eliminating cccDNA and inactivating integrated HBV DNA; expansion of the ELIMINATE-B clinical trial to the United States and United Kingdom; expectations around acceleration of recruitment of the ELIMINATE-B clinical trial and plans to evaluate a genetically diverse patient population in the Phase 1 study; expectations about achievement of key milestones; and anticipated timing of patient dosing and clinical data for PBGENE-HBV. In some cases, you can identify forward-looking statements by terms such as "aim," "anticipate," "approach," "believe," "contemplate," "could," "design," "designed," "estimate," "expect," "goal," "intend," "look," "may," "mission," "plan," "possible," "potential," "predict," "project," "pursue," "should," "strive," "suggest," "target," "will," "would," 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. These statements are neither promises nor guarantees, and involve 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 to advance our programs; risks associated with our capital requirements, anticipated cash runway, requirements under our current debt instruments and effects of restrictions thereunder, including our ability to raise additional capital due to market conditions and/or our market capitalization; our operating expenses and our ability to predict what those expenses will be; our limited operating history; the progression and 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; the risk that other genome-editing technologies may provide significant advantages over our ARCUS technology; our dependence on our ARCUS technology; the initiation, cost, timing, progress, achievement of milestones and results of research and development activities and preclinical and clinical studies, including clinical trial and investigational new drug applications; public perception about genome editing technology and its applications; competition in the genome editing, biopharmaceutical, and biotechnology fields; our or our collaborators' or other licensees' ability to identify, develop and commercialize product candidates; pending and potential product liability lawsuits and penalties against us or our collaborators or other licensees related to our technology and our product candidates; the U.S. and foreign regulatory landscape applicable to our and our collaborators' or other licensees' development of product candidates; our or our collaborators' or other licensees' ability to advance product candidates into, and successfully design, implement and complete, clinical trials; potential manufacturing problems associated with the development or commercialization of any of our product candidates; delays or difficulties in our and our collaborators' and other licensees' 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; our or our licensees' ability to obtain orphan drug designation or fast track designation for our product candidates or to realize the expected benefits of these designations; our or our collaborators' or other licensees' 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; the rate and degree of market acceptance of any of our product candidates; our ability to effectively manage the growth of our operations; our ability to attract, retain, and motivate executives and personnel; effects of system failures and security breaches; insurance expenses and exposure to uninsured liabilities; effects of tax rules; effects of any pandemic, epidemic, or outbreak of an infectious disease; the success of our existing collaboration and other license 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; 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; market and economic conditions; risks related to ownership of our common stock, including fluctuations in our stock price; 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, 2024, 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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