Precision BioSciences Presents Late-Breaking Phase 1 PBGENE-HBV Data at AASLD The Liver Meeting® Showing Safety, Tolerability and Cumulative, Dose-Dependent Antiviral Activity in First Three Cohorts

November 10, 2025 at 5:21 PM EST

PBGENE-HBV, the first gene editing therapy designed to treat chronic Hepatitis B by directly targeting HBV cccDNA and integrated HBV DNA, showcased as the final oral presentation in the late-breaking AASLD session at 5:45pm EST on Monday, November 10, 2025

PBGENE-HBV was well-tolerated across pre-planned repeat administrations at doses of 0.2mg/kg, 0.4 mg/kg, and 0.8mg/kg with no dose-limiting toxicities

Data to date from the Phase 1 ELIMINATE-B study demonstrates dose-dependent antiviral response, with activity observed in all nine patients across 22 doses in first three study cohorts

All three patients in highest dose cohort (0.8 mg/kg) showed steep declines of HBsAg at day 14 with evidence of cumulative declines in HBsAg after second administration of PBGENE-HBV in sentinel subject

Data suggests a potential path towards nucleos(t)ide withdrawal and testing for cure if confirmed with additional dose administrations and longer follow up

Paired biopsy data to date provides first evidence of viral DNA gene editing and directly correlates with observed HBsAg reductions

Company to host conference call tomorrow, November 11th at 8:00AM ET

DURHAM, N.C.--(BUSINESS WIRE)--Nov. 10, 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 a late-breaking oral presentation at the American Association for the Study of Liver Diseases (AASLD) The Liver Meeting® 2025. The presentation includes data from the ongoing ELIMINATE-B Phase 1 study evaluating PBGENE-HBV, a first-in-class *in vivo* gene editing therapy designed to eliminate cccDNA, the root cause of chronic Hepatitis B, and inactivate integrated HBV DNA.

The presentation, to be delivered by Dr. Man-Fung Yuen, Chair Professor of Gastroenterology and Hepatology at The University of Hong Kong, features new data from nine patients across 22 doses in the first three cohorts of the ELIMINATE-B trial. A copy of the presentation will be available on the Company's website.

"These new late-breaking data represent a milestone for Precision BioSciences and for the entire field of chronic Hepatitis B because it is the first time clinicians have been able to target the root viral source of the disease," said Michael Amoroso, Chief Executive Officer of Precision BioSciences. "The safety data and tolerability profile, along with dose-dependent durable reductions in hepatitis B surface antigen and the first liver biopsy data, provide evidence that antiviral activity is being achieved through directly editing the viral genome in patients with chronic Hepatitis B. This further validates ARCUS as a differentiated platform with true curative potential. With no observed dose-limiting toxicities to date, we look forward to finishing dosing the third cohort to generate additional data for PBGENE-HBV in our pursuit of a cure that has been so elusive in the field of Hepatitis B drug development."

AASLD Presentation Shows Evidence of Antiviral Activity and Favorable Safety Profile

As of the October 31, 2025 data cutoff date, nine evaluable patients have been dosed across three ascending cohorts (0.2, 0.4, and 0.8 mg/kg), with a total of 22 administered doses. Key clinical findings from the late-breaking presentation include:

- **Consistent antiviral activity across all treated patients regardless of baseline HBsAg**
  Every participant receiving PBGENE-HBV exhibited measurable reductions in hepatitis B surface antigen (HBsAg) following treatment, confirming on-target antiviral effects across all dose levels. Importantly, consistent levels of antiviral activity were observed in patients regardless of baseline HBsAg levels ranging from 370 to 11,813 IU/mL, with no upper limit in the study. The magnitude and persistence of these declines increased with higher doses, providing evidence of cumulative antiviral activity from pre-planned repeat administrations without cumulative toxicities.

- **Durable HBsAg reductions sustained over time**
  In Cohort 1 (0.2 mg/kg), there was evidence of antiviral activity in all three patients with one patient showing a durable ~50% reduction in HBsAg 9 months after the initial dose of PBGENE-HBV and holding. In Cohort 2 (0.4 mg/kg), all three patients achieved durable HBsAg declines that were maintained for 8 weeks after the first administration and continue to show durable suppression following the third dose administration with HBsAg reductions up to 66%.

- **Demonstrated dose-dependent antiviral activity**
  Cohort 3 (0.8 mg/kg) demonstrated further dose-responsive antiviral effects, with all three patients showing early (2 weeks) HBsAg reductions following the first dose, with additional administrations still planned to decrease HBsAg. One patient has received two administrations with a deepening response following the second dose, as evidenced by a 64% decrease in HBsAg without increases in HBsAg levels between dose administrations as was observed in lower dose cohorts. With all participants in Cohort 3 achieving substantially reduced HBsAg levels, as low as 188 IU/mL there is an emerging path to potentially stopping nucleos(t)ide analogs and testing for cure following additional planned administrations of PBGENE-HBV at this dose level.

- **Biopsy evidence of direct HBV DNA editing**
  Unlike existing therapies, PBGENE-HBV is designed to target the source of viral infection by directly eliminating cccDNA and inactivating integrated HBV DNA. This approach has the potential to permanently halt viral transcription and silence antigen production, with the goal of achieving complete cccDNA eradication and cure.

  A paired liver biopsy from Patient 5 (part of Cohort 2) confirmed the presence of ARCUS-mediated gene editing events within viral DNA, marking the first direct molecular evidence of HBV viral gene editing in humans. Following two administrations at 0.4 mg/kg, this patient's biopsy showed promising evidence of viral DNA editing by inactivation with insertion/deletion (indel) edits in viral DNA, further supporting the observed clinical antiviral effects and the PBGENE-HBV mechanism of cccDNA elimination and integrated HBV DNA inactivation. Continuing reductions of HBsAg were observed after the biopsy was taken due to the third dose of PBGENE-HBV, suggesting cumulative gene editing of the viral genome.

- **Favorable safety and tolerability profile**
  PBGENE-HBV was well tolerated across all cohorts, with no observed dose-limiting toxicities. Adverse events were transient and generally resolved within 12 hours. Transient infusion-related reactions resolved without intervention and were deemed not dose-limiting by the independent data safety monitoring committee. Platelet fluctuations were transient and asymptomatic.

- **Stable liver enzyme laboratory values across repeat administrations**
  Transient elevations in alanine aminotransferase (ALT) and aspartate aminotransferase (AST) which resolved within days of the infusion were observed shortly after dose administrations of PBGENE-HBV across all dose levels. Transaminase elevations were transient with no associated changes in bilirubin and no evidence of liver dysfunction. There was one case of reversible Grade 3 AST elevation without any associated bilirubin elevation that resolved within 3 days. The data were reviewed by the independent data monitoring committee and an independent liver safety committee, an expert group of global hepatologists, and deemed not dose-limiting. Collectively, these findings support the potential tolerability and hepatic safety for repeat administrations to drive antiviral responses.

"These data represent a landmark moment for the HBV field," said Dr. Man-Fung Yuen, lead investigator. "For the first time, we have clinical biopsy evidence that a gene editing therapy aimed at elimination of cccDNA can directly modify HBV DNA in infected human liver tissue—a step that we believe could redefine what is achievable in HBV drug development."

Next Steps: Toward Functional Cure and Expansion

PBGENE-HBV remains the only clinical-stage gene editing therapy targeting direct viral elimination as the curative mechanism for chronic Hepatitis B infection. Precision will complete all administrations in Cohort 3, expected to finalize in the first quarter of 2026. Precision can test for a cure by stopping nucleos(t)ide analogues when HBsAg becomes undetectable or as HBsAg values approach undetectable on a sustained basis. In parallel, other cohorts are planned including one to evaluate a 4-week dosing interval between administrations in addition to the current 8-week intervals in Cohorts 1-3, enabled by a predictable and manageable safety profile of PBGENE thus far.

After identifying the dose and schedule that allows for stopping of nucleos(t)ide analogue therapy, Precision expects to advance PBGENE-HBV into the Part 2 expansion phase of the ELIMINATE-B study. The goal in Part 2 is to evaluate the optimized dose regimen in a larger number of patients for safety and efficacy. Paired biopsies are expected to be conducted in all patients in Part 2 in order to provide robust biologic evidence of gene editing at the root viral source of the disease and cccDNA elimination.

Conference Call Details

The dial-in numbers for Precision's investor update on Tuesday, November 11th at 8:00 AM ET are:

US & Canada (Toll-Free): 1-800-715-9871
International: 1-646-307-1963
Passcode: 2525924

The webcast link for the event can be found here.

A replay of the presentation will be available on the Company's Investor Relations Events and Presentations webpage following the event.

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, designed to be a

potentially curative treatment for chronic Hepatitis B infection. PBGENE-HBV is the first and only potentially curative gene editing program to enter the clinic that is specifically designed to eliminate the root cause of chronic Hepatitis B, cccDNA, while inactivating integrated HBV DNA. The ELIMINATE-B trial is investigating PBGENE-HBV in HBeAg-negative patients at multiple ascending dose levels with three dose administrations per dose level in patients with chronic Hepatitis B. PBGENE-HBV has been granted breakthrough designation but the U.S. Food and Drug Administration.

About Hepatitis B

Hepatitis B is a leading cause of morbidity in the United States 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 United States 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, which enables continued viral replication, and integration of HBV DNA into the human genome in liver cells. Current treatments for patients with chronic hepatitis B 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 the Phase 1 ELIMINATE-B Trial

The Phase 1 ELIMINATE-B study is currently enrolling HBeAg-negative chronic hepatitis B patients at world-class sites in Moldova, Hong Kong, New Zealand, and the United States. The goal of the study is to define the optimal dose, frequency, and number of dose administrations for safely eliminating cccDNA and inactivating integrated HBV DNA. With regulatory clearance already granted, Precision expects to expand the study to clinical trial sites in the United Kingdom and continue accelerating recruitment and evaluation of a genetically diverse patient population in the Phase 1 study.

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 such as in the Company's PBGENE-HBV program), and excision (removing a large portion of a defective gene by delivering two ARCUS nucleases in a single AAV such as in the Company's Duchenne muscular dystrophy program).

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, expectations about operational initiatives, strategies, further development, or timing of additional updates or data releases of PBGENE-HBV; the design of PBGENE-HBV to target the root cause of the disease with the goal of achieving complete cccDNA eradication and cure of chronic Hepatitis B; clinical data suggesting a potential path towards stopping nucleos(t)ide analogs and testing for cure following additional planned administrations of PBGENE-HBV; the potential tolerability and hepatic safety for repeat administrations of PBGENE-HBV to drive antiviral responses; and paired biopsy data to date providing first evidence of viral DNA gene editing and directly correlating with observed HBsAg reductions. In some cases, you can identify forward-looking statements by terms such as "aim," "anticipate," "approach," "belief", "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, 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; 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; ; our ability to advance product candidates into, and successfully design, implement and complete, clinical trials; changes in interim "top-line" and initial data that we announce or publish; our current and future relationships with and reliance on third parties including suppliers and manufacturers; and other important factors discussed under the caption "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2024 and our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2025, June 30, 2025, and September 30, 2025 as any such factors may be updated from time to time in our other filings with the U.S. Securities and Exchange Commission (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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