



Precision BioSciences Receives Notice of Allowance for U.S. Patent Application Covering PBCAR19B, a Stealth Cell, CD19 Allogeneic CAR T Candidate for Non-Hodgkin Lymphoma

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DURHAM, N.C., Jan. 25, 2021 (GLOBE NEWSWIRE) -- Precision BioSciences, Inc. (Nasdaq: DTIL) a clinical stage biotechnology company dedicated to improving life with its wholly proprietary ARCUS® genome editing platform, today announced it has received a Notice of Allowance from the U.S. Patent and Trademark Office for a patent application covering PBCAR19B, a next-generation, stealth cell, CD19 product candidate for patients with relapsed/refractory (R/R) Non-Hodgkin Lymphoma (NHL).

The allowed composition claims of U.S. Patent Application No. 16/908,030 encompass genetically-modified human T cells comprising the Company's PBCAR19B construct, which is inserted within the T cell receptor alpha constant (TRAC) locus. Once issued, patents arising from this patent family will have standard expiration dates in April 2040.

"This patent, when issued, will cover important design elements of our PBCAR19B stealth cell candidate, which is engineered to knock down expression of beta-2 microglobulin to reduce killing of CAR T cells by cytotoxic T cells, and to reduce CAR T cell rejection by natural killer cells," said Derek Jantz, Ph.D., Chief Scientific Officer and Co-Founder of Precision BioSciences. "Additionally, PBCAR19B CAR T cells are generated using a single gene editing step by inserting one cassette, encoding all the necessary elements, into the TRAC locus. Not only will this patent strengthen our intellectual property portfolio, it will further distinguish our ARCUS-based allogeneic CAR T development approach."

About PBCAR19B

PBCAR19B is a next-generation, stealth cell candidate for patients with CD19-positive malignancies such as relapsed/refractory Non-Hodgkin Lymphoma. PBCAR19B is designed to improve the persistence of allogeneic CAR T cells following infusion by reducing rejection by T cells and natural killer (NK) cells. In addition to the CAR gene, the stealth vector includes a short hairpin RNA (shRNA) that suppresses expression of beta-2 microglobulin (B2M), a component of Class 1 major histocompatibility complex (MHC) molecules found on the cell surface. Reducing or knocking down Class 1 MHC expression on allogeneic CAR T cells has been shown to reduce CAR T cell killing by cytotoxic T cells. The stealth vector also carries an HLA-E gene intended to reduce rejection of CAR T cells by NK cells that can be stimulated as a result of reduced MHC molecule expression on the cell surface. The U.S. Food and Drug Administration has accepted the Investigational New Drug application for PBCAR19B, and the Phase 1 clinical study is expected to begin by mid-2021.

About Precision BioSciences, Inc.

Precision BioSciences, Inc. is a clinical stage biotechnology company dedicated to improving life (DTIL) with its wholly 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 correction therapy candidates to cure genetic and infectious diseases where no adequate treatments exist. For more information about Precision BioSciences, please visit www.precisionbiosciences.com.

About Precision's Collaboration with Servier

Under the terms of the agreement with Servier, Precision is solely responsible for early-stage research activities as well as PBCAR0191 Phase 1/2a and PBCAR19B Phase 1 clinical trial execution and clinical supply. Servier has the exclusive right to opt in for late-stage development and commercialization, and Precision has the right to participate in the development and commercialization of any licensed products resulting from the collaboration through a 50/50 co-development and co-promotion option in the United States.

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 expected commencement of a Phase 1 clinical trial for PBCAR19B, expected results from clinical trials involving PBCAR19B, and our patent portfolio and ARCUS-based allogeneic CAR T development approach. 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, 2020, 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.

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