



First Patient Enrolled in JDRF-Funded Phase II Trial of CPP-1X-T for Recent Onset Type 1 Diabetes, Led by Indiana University School of Medicine

MINNEAPOLIS (GLOBE NEWSWIRE) April 12, 2023 -- Panbela Therapeutics, Inc. (Nasdaq: PBLA), a clinical stage company developing disruptive therapeutics for the treatment of patients with urgent unmet medical needs, today announced the first patient enrolled in a Phase II double-blind, randomized study to evaluate CPP-1X-T (Eflornithine tablets) for recent onset type 1 diabetes. The multi-site clinical trial is led by researchers at Indiana University School of Medicine and funded by JDRF, the leading global type 1 diabetes research and advocacy organization.

The trial entitled “Targeting Type 1 Diabetes Using POLyamines (TADPOL)” is a double-blind placebo-controlled clinical trial to evaluate CPP-1X-T vs placebo in patients with recent onset type 1 diabetes at approximately 6 academic medical centers in the United States. Detailed information on the trial can be located at <https://clinicaltrials.gov/ct2/show/NCT05594563>.

“Options for combining disease-modifying therapies that target multiple underlying mechanisms of disease will be critical to successful longer-term delay or prevention of type 1 diabetes,” said [Emily K. Sims](#), MD, associate professor of pediatrics at IU School of Medicine and principal investigator of the clinical trial. “This is why we are especially excited about the potential for this drug, which may improve beta cell function by targeting the beta cell directly, instead of indirectly via effects on the immune system. Given our focus on understanding contributions of beta cell health to type 1 diabetes development, IU is a natural choice to lead this trial.”

Panbela Therapeutics is providing the drug at no cost to researchers, but the design and implementation of the study is led by the IU School of Medicine.

“We’re really excited to have the first patient enrolled in the Phase II trial for CPP-1X-T led by Indiana University School of Medicine and funded by JDRF, the leading global organization advancing life-changing breakthroughs for type 1 diabetes (T1D),” said Jennifer K. Simpson, PhD, MSN, CRNP, President & Chief Executive Officer of Panbela. “Some 1.45 million Americans are living with T1D. In the U.S., and there are \$16 billion in T1D-associated healthcare expenditures and lost income annually. We are excited for the opportunity to test and validate our therapies in T1D and the potential of this Phase II Trial to provide better treatment options for this patient population.”

[Indiana University School of Medicine](#) is annually ranked among the top medical schools in the nation by U.S. News & World Report. The school offers high-quality medical education, access to leading medical research and rich campus life in nine Indiana cities, including rural and urban locations consistently recognized for livability.

About Panbela's Pipeline

The pipeline consists of assets currently in clinical trials with an initial focus on familial adenomatous polyposis (FAP), first-line metastatic pancreatic cancer, neoadjuvant pancreatic cancer, colorectal cancer prevention and ovarian cancer. The combined development programs have a steady cadence of anticipated catalysts with programs ranging from pre-clinical to registration studies.

Ivospemin (SBP-101)

Ivospemin is a proprietary polyamine analogue designed to induce polyamine metabolic inhibition (PMI) by exploiting an observed high affinity of the compound for pancreatic ductal adenocarcinoma and other tumors. It has shown signals of tumor growth inhibition in clinical studies of metastatic pancreatic cancer patients, demonstrating a median overall survival (OS) of 14.6 months and an objective response rate (ORR) of 48%, both exceeding what is typical for the standard of care of gemcitabine + nab-paclitaxel suggesting potential complementary activity with the existing FDA-approved standard chemotherapy regimen. In data evaluated from clinical studies to date, ivospemin has not shown exacerbation of bone marrow suppression and peripheral neuropathy, which can be chemotherapy-related adverse events. Serious visual adverse events have been evaluated and patients with a history of retinopathy or at risk of retinal detachment will be excluded from future SBP-101 studies. The safety data and PMI profile observed in the previous Panbela-sponsored clinical trials provide support for continued evaluation of ivospemin in the ASPIRE trial.

Flynpovi™

Flynpovi is a combination of CPP-1X (eflornithine) and sulindac with a dual mechanism inhibiting polyamine synthesis and increasing polyamine export and catabolism. In a Phase 3 clinical trial in patients with sporadic large bowel polyps, the combination prevented > 90% subsequent pre-cancerous sporadic adenomas versus placebo. Focusing on FAP patients with lower gastrointestinal tract anatomy in the recent Phase 3 trial comparing Flynpovi to single agent eflornithine and single agent sulindac, FAP patients with lower GI anatomy (patients with an intact colon, retained rectum or surgical pouch), showed statistically significant benefit compared to both single agents ($p \leq 0.02$) in delaying surgical events in the lower GI for up to four years. The safety profile for Flynpovi did not significantly differ from the single agents and supports the continued evaluation of Flynpovi for FAP.

CPP-1X

CPP-1X (eflornithine) is being developed as a single agent tablet or high dose powder sachet for several indications including prevention of gastric cancer, treatment of neuroblastoma and recent onset Type 1 diabetes. Preclinical studies as well as Phase 1 or Phase 2 investigator-initiated trials suggest that CPP-1X treatment may be well-tolerated and has potential activity.

About Panbela

Panbela Therapeutics, Inc. is a clinical-stage biopharmaceutical company developing disruptive therapeutics for patients with urgent unmet medical needs. Panbela's lead assets are Ivospemin (SBP-101) and Flynnpovi. Further information can be found at www.panbela.com. Panbela's common stock is listed on The Nasdaq Stock Market LLC under the symbol "PBLA".

Cautionary Statement Regarding Forward-Looking Statements

This press release contains "forward-looking statements," including within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as: "anticipate," "believe," "can," "design," "expect," "focus," "intend," "may," "plan," "positioned," "potential," and "will." All statements other than statements of historical fact are statements that should be deemed forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially and adversely from the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following: (i) our ability to obtain additional funding to execute our business and clinical development plans; (ii) progress and success of our clinical development program; (iii) the impact of the current COVID-19 pandemic on our ability to conduct our clinical trials; (iv) our ability to demonstrate the safety and effectiveness of our product candidates: ivospemin (SBP-101) and eflornithine (CPP-1X); (v) our reliance on a third party for the execution of the registration trial for our product candidate Flynnpovi; (vi) our ability to obtain regulatory approvals for our product candidates, SBP-101 and CPP-1X in the United States, the European Union or other international markets; (vii) the market acceptance and level of future sales of our product candidates, SBP-101 and CPP-1X; (viii) the cost and delays in product development that may result from changes in regulatory oversight applicable to our product candidates, SBP-101 and CPP-1X; (ix) the rate of progress in establishing reimbursement arrangements with third-party payors; (x) the effect of competing technological and market developments; (xi) the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims; (xii) our ability to maintain the listing of our common stock on a national securities exchange; and (xiii) such other factors as discussed in Part I, Item 1A under the caption "Risk Factors" in our most recent Annual Report on Form 10-K, any additional risks presented in our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K. Any forward-looking statement made by us in this press release is based on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement or reasons why actual results would differ

from those anticipated in any such forward-looking statement, whether written or oral, whether as a result of new information, future developments or otherwise.

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