Panbela Announces Poster Presentation at American Association for Cancer Research: *Ivospemin/doxorubicin combination modulates polyamine metabolism to improve survival in murine ovarian cancer models*

MINNEAPOLIS, April 18, 2024 (GLOBE NEWSWIRE) -- Panbela Therapeutics, Inc. (OTCQB: PBLA)("Panbela"), a clinical stage biopharmaceutical company developing disruptive therapeutics for the treatment of patients with cancer today announces a poster presentation highlighting the results for ivospemin (SBP-101) as a polyamine metabolism modulator in ovarian cancer at the American Association for Cancer Research (AACR), which took place April 10, 2024. The work reflects the Company's on-going collaboration with Johns Hopkins University School of Medicine.

"Ivospemin, reduces the viability of human ovarian adenocarcinoma cell lines regardless of their platinum sensitivity and we found that the combination treatment with doxorubicin increases median survival, delays tumor onset, and decreases overall tumor burden compared to either clinical or subclinical doxorubicin dosing schemes." said Jennifer K. Simpson, PhD, MSN, CRNP, President & Chief Executive Officer of Panbela. "The continued work by collaborators at Johns Hopkins University School of Medicine is providing the foundation for the initiation of our ovarian cancer program in this year."

"The results suggest that SBP-101 in combination with doxorubicin may have a role in the clinical management of ovarian cancer, in particular the difficult to treat platinum-resistant population where few options exist," said Dr. Simpson. "These studies continue to support the basis for moving into a clinical trial program in ovarian cancer with a goal of developing effective novel therapeutics in combination with standard of care for patients with unmet medical needs."

The poster highlights the efficacy of SBP-101 in combination with doxorubicin which is used to treat platinum-resistant ovarian cancer. Treatment with doxorubicin significantly increases the *in vitro* toxicity of SBP-101 in both cisplatin-sensitive and cisplatin-resistant ovarian cancer cell lines. SBP-101 and doxorubicin cooperatively increase polyamine catabolism and decrease overall cell survival *in vitro*.

Utilizing the immunocompetent VDID8$^+$ murine ovarian cancer model (ID8$^+$ C57Bl/6 ovarian cells overexpressing both VEGF and Defensin), the combination of SBP-101 and doxorubicin was evaluated significantly increased median mouse survival time. Cotreatment also results in delayed ascites formation and decreased overall tumor burden. The combination treatment cooperatively decreases overall ascitic polyamine content.

Immunodeficient NSG mice injected with VDID8$^+$ ovarian cancer cells do not receive a survival benefit from ivospemin, doxorubicin, or a combination treatment, indicating that an intact immune system is required for the efficacy of this therapy. The poster concludes that the

treatment of C57Bl/6 mice containing VDID8$^+$ ovarian cancer with SBP-101 in combination with doxorubicin significantly prolonged survival and decreased overall tumor burden. Future studies will be designed to evaluate the effects of SBP-101 in combination with other polyamine metabolism modulators as well as with immune modulators.

Details of the presentation are as follows:

Poster Presentation

Title: Ivospemin/doxorubicin combination modulates polyamine metabolism to improve survival in murine ovarian cancer models
Session Category: Experimental and Molecular Therapeutics
Session Title: Novel Antitumor Agents 6
Session Date and Time: Wednesday, April 10, 9:00-12:30
Abstract #: 7154

Additional meeting information can be found on the AACR website:
https://www.aacr.org/meeting/aacr-annual-meeting-2024/abstracts/

The abstract and poster will also be available on the Company's website at **https://panbela.com/events-presentations/**.

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 III

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 III 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 I or Phase II 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 Flynpovi. Further information can be found at **www.panbela.com.** Panbela's common stock is eligible for quotation on the OTCQB 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," "looking forward," "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 Flynpovi ; (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 obtain a listing of our common stock on a national securities exchange; and (xii) 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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