Plus Therapeutics Presents Positive ReSPECT-LM Phase 1 Interim Data for Leptomeningeal Metastases at the 2024 SNO Annual Conference

November 25, 2024

Single intrathecal dose of Rhenium (^{186}Re) Obisbemeda shows a favorable response rate and median overall survival in leptomeningeal metastases (LM) patients

Achieves up to 8x absorbed radiation dose to the CNS subarachnoid space vs. standard of care external beam radiation

Receives FDA agreement to initiate the ReSPECT-LM Phase 1 multiple administration dose escalation trial of Rhenium (^{186}Re) Obisbemeda for LM

AUSTIN, Texas, Nov. 25, 2024 (GLOBE NEWSWIRE) -- Plus Therapeutics, Inc. (Nasdaq: PSTV) ("Plus" or the "Company"), a clinical-stage pharmaceutical company developing targeted radiotherapeutics with advanced platform technologies for central nervous system cancers, presented data updating the progress of its ReSPECT-LM Phase 1 clinical trial of Rhenium (^{186}Re) Obisbemeda (Rhenium Nanoliposome, ^{186}RNL) in leptomeningeal disease (LM). The data were presented at the 2024 Society for Neuro-Oncology (SNO) Annual Meeting November 21-24 in Houston, Texas.

"The combination of a high absorbed radiation dose, favorable safety profile, and consistent response data is very encouraging, particularly in a Phase 1 trial," said Dr. Andrew Brenner, M.D., Ph.D. "Furthermore, the observed median overall survival rate and long tail survivors receiving multiple doses via compassionate use are uncommon in LM patients, driving our commitment to move rapidly into dose expansion and multiple-dose trials."

The data were presented in a session titled, "Rhenium (^{186}Re) Obisbemeda (rhenium nanoliposome,^{186}RNL) for the treatment of leptomeningeal metastases (LM): Summary of the Phase 1 dose escalation study and Phase 2 administered dose selection," by Andrew Brenner, M.D., Ph.D., Professor and Kolitz/Zachry Endowed Chair Neuro-Oncology Research; Co-Leader, Experimental and Developmental Therapeutics Program, University of Texas Health, San Antonio.

KEY HIGHLIGHTS

ReSPECT-LM Single Administration Dose Escalation Trial

Overview:

- Twenty patients with LM were treated and evaluable through Cohort 5, receiving a single intrathecal dose of Rhenium (^{186}Re) Obisbemeda of up to 66.14 mCi of radiation
- Primary cancer diagnosis for the 20 patients with LM included breast cancer (n = 9), non-small cell lung cancer (n = 5), and other primary cancers (n = 6)

Safety:

- The safety profile through Cohort 5 was favorable, with 1 dose-limiting toxicity (thrombocytopenia) observed in Cohort 5
- Pharmacodynamic and pharmacokinetic analyses indicated that after a single administration, Rhenium (^{186}Re) Obisbemeda remained in the cerebrospinal fluid space for at least 7 days and achieved average absorbed doses of up to 253 Gy to the cranial subarachnoid space in Cohort 5

Response:

- The best clinical benefit rate from a single dose of Rhenium (^{186}Re) Obisbemeda, assessed from baseline to day 112, was measured through complete response, partial response, and stable disease across three key metrics:
  - Circulating tumor cells: 93% (14/15 patients) responded, including 1 complete response and 1 stable case
  - MRI imaging: 75% (12/16 patients), with 5 responses and 7 stable cases
  - Clinical Response: 86% (12/14 patients), with 2 responses and 10 stable cases
- Median overall survival for Cohorts 1-4 was 9 months, with 6 out of the 16 patients alive at the time of analysis
- Three of the 20 patients received up to 3 doses of Rhenium (^{186}Re) Obisbemeda under compassionate use IND, all surviving over 400 days, with one exceeding 30 months

Next steps:

- The first patient in Cohort 6 has been treated using a modified dose of 75 mCi

- Cohort 6 is anticipated to conclude in Q1 2025
- Planning is underway for a Phase 1b single dose expansion cohort trial using the Cohort 4 dose of 44 mCi, which is expected to fully enroll in 2025

ReSPECT-LM Multiple Administration Dose Interval Compression Trial

- Obtained agreement from FDA to begin the ReSPECT-LM multi-administration trial for patients with LM (IND 153715); enrollment is expected to begin in early 2025 at seven U.S. trial sites
- The trial will be a two-part study aimed at evaluating the safety, dosing intervals, and efficacy of administering multiple doses of Rhenium (^{186}Re) Obisbemeda to patients with LM

About Leptomeningeal Metastases (LM)
LM is a rare complication of cancer in which the primary cancer spreads to the cerebrospinal fluid (CSF) and leptomeninges surrounding the brain and spinal cord. All malignancies originating from solid tumors, primary brain tumors, or hematological malignancies have this LM complication potential with breast cancer as the most common cancer linked to LM, with 3-5% of breast cancer patients developing LM. Additionally, lung cancer, GI cancers and melanoma can also spread to the CSF and result in LM. LM occurs in approximately 5% of people with cancer and is usually terminal with 1-year and 2-year survival of just 7% and 3%, respectively. The incidence of LM is on the rise, partly because cancer patients are living longer and partly because many standard chemotherapies cannot reach sufficient concentrations in the spinal fluid to kill the tumor cells; yet, there are no FDA-approved therapies specifically for LM patients, who often succumb to this complication within weeks to several months, if untreated.

About Rhenium (^{186}Re) obisbemeda
Rhenium (^{186}Re) obisbemeda is a novel injectable radiotherapy specifically formulated to deliver direct targeted high dose radiation in CNS tumors in a safe, effective, and convenient manner to optimize patient outcomes. Rhenium (^{186}Re) obisbemeda has the potential to reduce off target risks and improve outcomes for CNS cancer patients, versus currently approved therapies, with a more targeted and potent radiation dose. Rhenium-186 is an ideal radioisotope for CNS therapeutic applications due to its short half-life, beta energy for destroying cancerous tissue, and gamma energy for real-time imaging. Rhenium (^{186}Re) obisbemeda is being evaluated for the treatment of recurrent glioblastoma and leptomeningeal metastases in the ReSPECT-GBM and ReSPECT-LM clinical trials. ReSPECT-GBM is supported by an award from the National Cancer Institute (NCI), part of the U.S. National Institutes of Health (NIH), and ReSPECT-LM is funded by a three-year $17.6M grant by the Cancer Prevention & Research Institute of Texas (CPRIT).

About Plus Therapeutics
Plus Therapeutics, Inc. is a clinical-stage pharmaceutical company developing targeted radiotherapeutics for difficult-to-treat cancers of the central nervous system with the potential to enhance clinical outcomes for patients. Combining image-guided local beta radiation and targeted drug delivery approaches, the Company is advancing a pipeline of product candidates with lead programs in recurrent glioblastoma (GBM) and leptomeningeal metastases (LM). The Company has built a supply chain through strategic partnerships that enable the development, manufacturing, and future potential commercialization of its products. Plus Therapeutics is led by an experienced and dedicated leadership team and has operations in key cancer clinical development hubs including Austin and San Antonio, Texas. For more information, visit https://plustherapeutics.com/.

Cautionary Statement Regarding Forward-Looking Statements
This presentation contains statements that may be deemed “forward-looking statements” within the meaning of U.S. securities laws, including statements regarding clinical trials, expected operations and upcoming developments. All statements in this press release other than statements of historical fact are forward-looking statements. These forward-looking statements may be identified by future verbs, as well as terms such as “potential,” “anticipating,” “planning” and similar expressions or the negatives thereof. Such statements are based upon certain assumptions and assessments made by management in light of their experience and their perception of historical trends, current conditions, expected future developments and other factors they believe to be appropriate. These statements include, without limitation, statements regarding the following: the planned dose expansion and multiple-dose trials of patients with leptomeningeal metastases; the timeline for completing the Company’s leptomeningeal metastases patient Cohort 6; the timeline for commencing the Company’s expansion trial of patients with leptomeningeal metastases; and timeline for the Company’s ReSPECT-LM multi-administration trial of patients with leptomeningeal metastases.

The forward-looking statements included in this press release could differ materially from those expressed or implied by these forward-looking statements because of risks, uncertainties, and other factors that include, but are not limited to, the following: the early stage of the Company’s product candidates and therapies; the results of the Company’s research and development activities, including uncertainties relating to the clinical trials of its product candidates and therapies; the Company’s liquidity and capital resources and its ability to raise additional cash to fund its operations in the near term and long term, on terms acceptable to us or at all; the outcome of the Company’s partnering/licensing efforts; risks associated with laws or regulatory requirements applicable to the Company, including the ability to come into compliance with The Nasdaq Capital Market listing requirements; market conditions; product performance; litigation or potential litigation; competition within the cancer diagnostics and therapeutics field; ability to develop and protect proprietary intellectual property or obtain licenses to intellectual property developed by others on commercially reasonable and competitive terms; manufacturing and supply chain risks; and material security breach or cybersecurity attack affecting the Company’s operations or property. This list of risks, uncertainties, and other factors is not complete. Plus Therapeutics discusses some of these matters more fully, as well as certain risk factors that could affect Plus Therapeutics’ business, financial condition, results of operations, and prospects, in its reports filed with the SEC, including Plus Therapeutics’ annual report on Form 10-K for the fiscal year ended December 31, 2023, quarterly reports on Form 10-Q, and current reports on Form 8-K. These filings are available for review through the SEC’s website at www.sec.gov. Any or all forward-looking statements Plus Therapeutics makes may turn out to be wrong and can be affected by inaccurate assumptions Plus Therapeutics might make or by known or unknown risks, uncertainties, and other factors, including those identified in this press release. Accordingly, you should not place undue reliance on the forward-looking statements made in this press release, which speak only as of its date. The Company assumes no responsibility to update or revise any forward-looking statements to reflect events, trends or circumstances after the date they are made unless the Company has an obligation under U.S. federal securities laws to do so.

Investor Contact

Charles Y. Huang, MBA
Director of Capital Markets and Investor Relations
Office: (202)-209-5751 | Direct (301)-728-7222
chuang@plustherapeutics.com