Plus Therapeutics Presents Positive ReSPECT-LM Phase 1 Interim Data for Breast Cancer Patients with Leptomeningeal Metastases at the 2024 San Antonio Breast Cancer Symposium

December 17, 2024

Single intrathecal dose of Rhenium (^{186}Re) Obisbemeda delivers favorable responses in cerebrospinal fluid circulating tumor cell count, imaging, and clinical evaluation

Both single-dose and multiple-dose expansion trials planned in 2025

AUSTIN, Texas, Dec. 17, 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) with a specific focus on breast cancer patients. The data were presented at the 2024 San Antonio Breast Cancer Symposium on December 10-13.

The data were presented in a session titled "Rhenium (^{186}Re) Obisbemeda (Rhenium Nanoliposome, ^{186}RNL) for the Treatment of Leptomeningeal Metastases (LM): Update on Phase 1 Dose Escalation Study," 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 from the Presentation:

- Nine of 20 patients with LM primary breast cancer were treated and evaluable through five dose escalation cohorts, with the maximum tolerated dose yet to be reached
- Primary breast cancer biomarker status across the 9 patients were:
  - ER positive/HER2 negative: n=3
  - HER2 positive: n=2
  - Triple negative: n=4
- Patients received a single intrathecal dose of Rhenium (^{186}Re) Obisbemeda, ranging from 6.6 to 66.14 mCi of radiation
- Only one dose-limiting toxicity (thrombocytopenia) was reported (Cohort 5)
- A linear increase in absorbed dose was observed from Cohorts 1 through 5, with an average absorbed dose of 253 Gy to the cranial subarachnoid space in Cohort 5
- Circulating tumor cell (CTC) and radiographic (MRI) response data were available for 8 of the 9 breast cancer patients with LM, and clinical response data were available for 7 of the 9 patients
  - Best response rates (response only) were:
    - CTC: 88% (7/8)
    - MRI imaging: 25% (2/8)
    - Clinical: 29% (2/7)
  - Clinical benefit rates (response and stable disease) were:
    - CTC: 100% (8/8)
    - MRI imaging: 75% (6/8)
    - Clinical: 71 % (5/7)
- Median overall survival for 9 breast cancer patients was 9 months, with 2 patients surviving beyond 600 days post-treatment

Next steps:

- Initiate ReSPECT-LM Phase 1b single-dose breast expansion cohort in Q1 2025 to further evaluate single-dose safety and efficacy of Rhenium (^{186}Re) Obisbemeda

"Breast cancer is the most common primary cancer associated with leptomeningeal metastases," said Marc H. Hedrick, M.D., Plus Therapeutics'

President and Chief Executive Officer. “Based on the promising data observed thus far, we intend to move forward rapidly into a breast cancer focused expansion cohort along with our planned multiple dose expansion trial.”

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 press release 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.

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