

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**Form 8-K**

**Current Report  
Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): August 13, 2022**

**PLUS THERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-34375**  
(Commission  
File Number)

**33-0827593**  
(IRS Employer  
Identification No.)

**4200 Marathon Blvd., Suite 200, Austin,  
Texas 78756**  
(Address of principal executive offices, with zip code)

**(737) 255-7194**  
(Registrant's telephone number, including area code)

**N/A**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
<b>Common Stock, par value \$0.001</b>	<b>PSTV</b>	<b>The Nasdaq Capital Market</b>

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

---

**Item 8.01 Other Events.**

On August 17, 2022, Plus Therapeutics, Inc. (the “Company”) announced that it has been awarded a \$17.6 million Product Development Research grant by the Cancer Prevention and Research Institute of Texas to fund the continued development of the Company’s lead investigational targeted radiotherapeutic, Rhenium-186 NanoLiposome (“<sup>186</sup>RNL”), for the treatment of patients with leptomeningeal metastases (“LM”).

Previously, on August 13, 2022, the Company announced that the dose administered in the first cohort of the Company’s Phase 1/2a dose escalation trial of <sup>186</sup>RNL for the treatment of patients with LM was well-tolerated with no treatment-related adverse events greater than grade 1, and that the three patients in the cohort experienced <sup>186</sup>RNL distribution throughout the cerebrospinal fluid (“CSF”) subarachnoid space and a decreased CSF cell count after treatment, each of which was durable past one week.

Separately, on August 15, 2022, the Company announced that its Board of Directors has approved a share repurchase program pursuant to which the Company is authorized to repurchase up to \$2.0 million of the Company’s outstanding common stock. The timing and amount of any shares repurchased will be determined based on the Company’s evaluation of market conditions and other factors, including consent of the Company’s lender. Repurchases may be made from time to time on the open market over the next 12 months. The Company is not obligated to acquire any shares and the program may be discontinued or suspended at any time.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: August 17, 2022

**PLUS THERAPEUTICS, INC.**

By: /s/ Marc H. Hedrick, M.D.

Marc H. Hedrick, M.D.

President and Chief Executive Officer