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): **February 3, 2021**

Sio Gene Therapies Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-37418**	**85-3863315**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

130 West 42nd Street
26th Floor
New York, New York 10036
(Address of principal executive offices) (Zip Code)

(Registrant's telephone number, including area code): **+1 877 746 4891**

11 Times Square
33rd Floor
New York, New York 10036

(Former name, former address and former fiscal year, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions:

☐ 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**
Common Stock, par value $0.00001 per share	SIOX	The Nasdaq Stock Market LLC

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 7.01 Regulation FD Disclosure.

On February 3, 2021, Sio Gene Therapies Inc. (the "Registrant") issued a press release announcing that the first patient has been dosed in a clinical trial of AXO-AAV-GM2 in patients with Tay-Sachs and Sandhoff disease (GM2 gangliosidosis).

A copy of this press release is furnished as Exhibit 99.1 to this report and is incorporated herein by reference. The disclosures set forth in this Item 7.01 and Exhibit 99.1 to this report are furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or subject to the liabilities of that section. The information contained in this Item 7.01 and Exhibit 99.1 to this report shall not be deemed incorporated by reference into any other filing with the SEC made by us, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Item 8.01 Other Events.

On February 3, 2021, the Registrant announced that the first patient with infantile Tay-Sachs disease has been dosed in a Phase 1/2 trial evaluating AXO-AAV-GM2, an investigational gene therapy for the treatment of GM2 gangliosidosis, also known as Tay-Sachs or Sandhoff Disease.

The Phase 1/2 study (NCT04669535) is an open-label, two-stage clinical trial designed to evaluate safety and dose-escalation (Stage 1) and safety and efficacy (Stage 2) of surgical delivery of AXO-AAV-GM2 directly to the brain and spinal cord of pediatric participants with both infantile and juvenile GM2 gangliosidosis. AXO-AAV-GM2 has been granted Orphan Drug and Rare Pediatric Disease Designation by the United States Food and Drug Administration and is the first investigational gene therapy to enter clinical trials for GM2 gangliosidosis. In 2019, clinical evidence from two patients under an investigator-initiated study found that treatment with AXO-AAV-GM2 was generally well-tolerated and associated with improved bioactivity outcomes.

GM2 gangliosidosis is a set of rare, monogenic neurodegenerative lysosomal storage disorders caused by mutations in the genes that encode the enzyme β-Hexosaminidase A. It can be categorized into two distinct diseases, Tay-Sachs disease, which results from a mutation in the gene encoding the alpha subunit of the β-Hexosaminidase A enzyme (*HEXA*), and Sandhoff disease, which results from a mutation in the gene encoding the beta subunit of the β-Hexosaminidase A enzyme (*HEXB*). Children affected by GM2 gangliosidosis suffer from a progressively debilitating disease course and reduced life expectancy.

The Registrant aims to advance the program through strategic partnerships with leading research organizations. The Registrant has a partnership with Viralgen, an AskBio subsidiary, to support adeno-associated virus-based vector manufacturing of clinical trial material for the registrational study. Additionally, through an existing genetic testing collaboration with Invitae, ongoing partnership with GM2 gangliosidosis patient groups, and collaboration with leading academic researchers at the University of Massachusetts Medical School and Massachusetts General Hospital, the Registrant has begun patient identification and site startup activities for the ongoing clinical study.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

EXHIBIT INDEX

Exhibit No.	Description of Document
99.1	Press Release of Sio Gene Therapies Inc.., dated February 3, 2021, "Sio Gene Therapies Announces First Patient Dosed in Clinical Trial of AXO-AAV-GM2 in Patients with Tay-Sachs and Sandhoff Disease (GM2 Gangliosidosis)"

SIGNATURE

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.

SIO GENE THERAPIES INC.

Dated: February 3, 2021

By: /s/ David Nassif

Name: David Nassif

Title: Chief Financial Officer and General Counsel

Exhibit 99.1

Sio Gene Therapies Announces First Patient Dosed in Clinical Trial of AXO-AAV-GM2 in Patients with Tay-Sachs and Sandhoff Disease (GM2 Gangliosidosis)

– *First potentially disease-modifying gene therapy for GM2 gangliosidosis to enter clinical studies*

– *Expect to continue patient identification, screening, and enrollment in Stage 1 of the study throughout 2021*

NEW YORK, and RESEARCH TRIANGLE PARK, N.C., February 3, 2021 (GLOBE NEWSWIRE) – Sio Gene Therapies Inc. (NASDAQ: SIOX), a clinical-stage company focused on developing gene therapies to radically transform the lives of patients with neurodegenerative diseases, today announced that the first patient with infantile Tay-Sachs disease has been dosed in a Phase 1/2 trial evaluating AXO-AAV-GM2, an investigational gene therapy for the treatment of GM2 gangliosidosis, also known as Tay-Sachs or Sandhoff Disease.

"We are proud to bring the first potentially disease-modifying treatment for GM2 gangliosidosis to the clinic, which is a milestone both for Sio, for patients, and for the field of gene therapy," said Gavin Corcoran, M.D., Chief R&D Officer of Sio. "By restoring lysosomal enzyme activity where it is essential, AXO-AAV-GM2 has the potential to change the course of this disease and help affected children attain and retain important neuro-developmental milestones. The prior investigator-initiated study of AXO-AAV-GM2 provided important proof-of-concept data and we look forward to the results of the first stage of our study as we strive to develop a treatment for children suffering from this rapidly progressive and fatal disease."

Florian Eichler, M.D., Director of the Leukodystrophy Service of the Center for Rare Neurological Diseases at Massachusetts General Hospital, and principal investigator, added, "To date, the current GM2 treatment landscape is limited to supportive care, underscoring the significant need for new treatment options to address this devastating pediatric neurodegenerative disease. AXO-AAV-GM2 has significant potential to address the clinical manifestations of both Tay Sachs and Sandhoff diseases, and as a result, the dosing of this patient represents a major step forward for this therapy. We look forward to evaluating the results of this study and advancing the first potentially disease-modifying treatment option for patients with GM2."

The Phase 1/2 study (NCT04669535) is an open-label, two-stage clinical trial designed to evaluate safety and dose-escalation (Stage 1) and safety and efficacy (Stage 2) of surgical delivery of AXO-AAV-GM2 directly to the brain and spinal cord of pediatric participants with both infantile and juvenile GM2 gangliosidosis. AXO-AAV-GM2 has been granted Orphan Drug and Rare Pediatric Disease Designation by the FDA and is the first investigational gene therapy to enter clinical trials for GM2 gangliosidosis. In 2019, clinical evidence from two patients under an investigator-initiated study found that treatment with AXO-AAV-GM2 was generally well-tolerated and associated with improved bioactivity outcomes.

"The families of children with Sandhoff and Tay-Sachs Disease show incredible bravery in choosing to participate in investigational studies of novel therapeutics like AXO-AAV-GM2. We share their hope that this treatment can halt or reverse the otherwise inexorable course of these tragic diseases," said Terence R. Flotte, MD, professor of pediatrics and dean at the University of Massachusetts Medical School and principal investigator of the trial.

GM2 gangliosidosis is a set of rare, monogenic neurodegenerative lysosomal storage disorders caused by mutations in the genes that encode the enzyme β-Hexosaminidase A. It can be categorized into two distinct diseases, Tay-Sachs disease, which results from a mutation in the gene encoding the alpha subunit of the β-Hexosaminidase A enzyme (*HEXA*), and Sandhoff disease, which results from a mutation in the gene encoding the beta subunit of the β-Hexosaminidase A enzyme (*HEXB*). Children affected by GM2 gangliosidosis suffer from a progressively debilitating disease course and reduced life expectancy.

Sue Kahn, Executive Director of National Tay-Sachs & Allied Diseases Association (NTSAD), added, "This news represents the culmination of many years of work to advance this research and immense support from the GM2 community, and it underscores the dire need for new treatment options capable of providing meaningful benefits to patients and families. We are extremely excited by the progress Sio has made and the hope it brings to our community."

Sio aims to advance the program through strategic partnerships with leading research organizations. The Company has a partnership with Viralgen, an AskBio subsidiary, to support AAV-based vector manufacturing of clinical trial material for the registrational study. Additionally, through an existing genetic testing collaboration with Invitae, ongoing partnership with GM2 gangliosidosis patient groups, and collaboration with leading academic researchers at the University of Massachusetts Medical School and Massachusetts General Hospital, Sio has begun patient identification and site startup activities for the ongoing clinical study.

About AXO-AAV-GM2

AXO-AAV-GM2 is an investigational gene therapy for GM2 gangliosidosis (also known as Tay-Sachs and Sandhoff diseases), a set of rare and fatal pediatric neurodegenerative genetic disorders caused by defects in the *HEXA* (leading to Tay-Sachs disease) or *HEXB* (leading to Sandhoff disease) genes that encode the two subunits of the β-hexosaminidase A (HexA) enzyme. These genetic defects lead to progressive neurodegeneration and shortened life expectancy. AXO-AAV-GM2 aims to restore HexA function by introducing a functional copy of the *HEXA* and *HEXB* genes via delivery of two co-administered AAVrh8 vectors.

About Sio Gene Therapies

Sio Gene Therapies combines cutting-edge science with bold imagination to develop genetic medicines that aim to radically improve the lives of patients. Our current pipeline of clinical-stage candidates includes the first potentially curative AAV-based gene therapies for GM1 gangliosidosis and Tay-Sachs/Sandhoff diseases, which are rare and uniformly fatal pediatric conditions caused by single gene deficiencies. We are also expanding the reach of gene therapy to highly prevalent conditions such as Parkinson's disease, which affects millions of patients globally. Led by an experienced team of gene therapy development experts, and supported by collaborations with premier academic, industry, and patient advocacy organizations, Sio is focused on accelerating its candidates through clinical trials to liberate patients with debilitating diseases through the transformational power of gene therapies. For more information, visit www.siogtx.com.

In 2018, Sio licensed exclusive worldwide rights from the University of Massachusetts Medical School for the development and commercialization of gene therapy programs for GM1 gangliosidosis and GM2 gangliosidosis, including Tay-Sachs and Sandhoff diseases.

Forward-Looking Statements

This press release contains forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995 and other federal securities laws. The use of words such as "expect" "potentially," and "potential," and other similar expressions are intended to identify forward-looking statements. For example, all statements Sio makes regarding costs associated with its operating activities are forward-looking. All forward-looking statements are based on estimates and assumptions by Sio's management that, although Sio believes to be reasonable, are inherently uncertain. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that Sio expected. Such risks and uncertainties include, among others, the impact of the Covid-19 pandemic on our operations, the initiation and conduct of preclinical studies and clinical trials; the availability of data from clinical trials; the development of a suspension-based manufacturing process for AXO-Lenti-PD; the scaling up of manufacturing, the expectations for regulatory submissions and approvals; the continued development of our gene therapy product candidates and platforms; Sio's scientific approach and general development progress; and the availability or commercial potential of Sio's product candidates. These statements are also subject to a number of material risks and uncertainties that are described in Sio's most recent Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 13, 2020, as updated by its subsequent filings with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which it was made. Sio undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Contacts:

Media

Josephine Belluardo, Ph.D.
LifeSci Communications
(646) 751-4361
jo@lifescicomms.com
info@siogtx.com

Investors and Analysts

Parag V. Meswani, Pharm.D.
Sio Gene Therapies Inc.
Chief Commercial Officer
investors@siogtx.com