# 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): January 05, 2023**

# Graphite Bio, Inc.

**(Exact name of Registrant as Specified in Its Charter)**

| **Delaware** | **001-40532** | **84-4867570** |
|---|---|---|
| **(State or Other Jurisdiction of Incorporation)** | **(Commission File Number)** | **(IRS Employer Identification No.)** |

| | |
|---|---|
| **201 HASKINS WAY SUITE 210 SOUTH SAN FRANCISCO, California** | **94080** |
| **(Address of Principal Executive Offices)** | **(Zip Code)** |

**Registrant's Telephone Number, Including Area Code: 650 484-0886**

**(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:

☐ 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 | GRPH | The NASDAQ Global Market |

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 January 5, 2023, Graphite Bio, Inc. (the "Company") issued a press release titled "Graphite Bio Announces Voluntary Pause of Phase 1/2 CEDAR Study of nulabeglogene autogedtemcel (nula-cel) for Sickle Cell Disease." A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated into this Item 8.01 by reference.

**Item 9.01 Financial Statements and Exhibits.**

| Exhibit Number | Description |
|---|---|
| 99.1 | Press Release dated January 5, 2022 titled "Graphite Bio Announces Voluntary Pause of Phase 1/2 CEDAR Study of nulabeglogene autogedtemcel (nula-cel) for Sickle Cell Disease." |
| 104 | Cover Page Interactive Data (embedded within the Inline XBRL document) |

**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.

Graphite Bio, Inc.

Date: January 5, 2023

By: /s/ Alethia Young
**Alethia Young**
Chief Financial Officer

**Exhibit 99.1**
Exhibit 99.1

**Graphite Bio Announces Voluntary Pause of Phase 1/2 CEDAR Study of nulabeglogene autogedtemcel (nula-cel) for Sickle Cell Disease**

SOUTH SAN FRANCISCO, Calif., January 5, 2023 – Graphite Bio, Inc. (Nasdaq: GRPH) today announced it is voluntarily pausing the Phase 1/2 CEDAR study of nulabeglogene autogedtemcel (nula-cel) for sickle cell disease (SCD) due to a serious adverse event in the first patient dosed with nula-cel, and the company's conclusion that the event is likely related to study treatment. As a result, the company will not meet its guidance for initial proof-of-concept data in mid-2023.

The decision by Graphite Bio to voluntarily pause the CEDAR study follows a serious and unexpected adverse event of prolonged low blood cell counts (pancytopenia) requiring ongoing transfusion and growth factor support in the first patient dosed with nula-cel. The event has been reported to the U.S. Food and Drug Administration. The patient achieved study-defined neutrophil engraftment and has shown no evidence of myelodysplasia, a rare type of blood cancer. While the event did not meet study stopping requirements, based on evolving clinical data, Graphite Bio decided to voluntarily pause the study.

Graphite Bio is comprehensively assessing the adverse event, risk factors and mitigation strategies, including potential modifications to the nula-cel manufacturing process. The clinical investigators and Safety Monitoring Committee for the CEDAR study have agreed with the company's decision to suspend dosing of additional patients pending this assessment.

"The safety of every patient who participates in our clinical studies and is treated with our therapies is our absolute highest priority. We thank the patients enrolled in our study, especially our first patient, for trusting us with their treatment and care," said Josh Lehrer, M.D., M. Phil., chief executive officer of Graphite Bio. "We are committed to working closely with our scientific and clinical experts to fully assess this event and identify a potential path to resume the CEDAR study. We are grateful for the partnership with the sickle cell community, our clinical investigators, our founders and scientific experts and the FDA as we determine next steps for our nula-cel program in sickle cell disease."

Based on the ongoing activities in the nula-cel program, Graphite Bio no longer expects to file an investigational new drug application for GPH102 in beta-thalassemia by mid-2024. The company is also working to identify operational efficiencies to extend its cash position to at least 2026.

Graphite Bio will provide a business update by the end of the first quarter of 2023.

**About nulabeglogene autogedtemcel (nula-cel)**

Nula-cel, formerly GPH101, is an investigational next-generation gene editing autologous hematopoietic stem cell (HSC) therapy designed to directly correct the genetic mutation that causes sickle cell disease (SCD). A serious, life-threatening inherited blood disorder, SCD affects approximately 100,000 people in the United States and millions of people around the world, making it the most prevalent monogenic blood disease worldwide. Nula-cel is the first investigational therapy to use a highly differentiated gene correction approach that seeks to efficiently and precisely correct the mutation in the beta-globin gene to decrease sickle hemoglobin (HbS) production and restore adult hemoglobin (HbA) expression, thereby potentially curing SCD. The U.S. Food and Drug Administration (FDA) granted Fast Track and Orphan Drug designations to nula-cel for the treatment of SCD.

Graphite Bio is evaluating nula-cel in the CEDAR study, an open-label, multi-center Phase 1/2 clinical trial designed to assess safety, engraftment success, gene correction rates, total hemoglobin, as well as other clinical and exploratory endpoints and pharmacodynamics in patients with severe SCD.

**About Graphite Bio**
Graphite Bio is a clinical-stage, next-generation gene editing company driven to discover and develop cures for a wide range of serious and life-threatening diseases. The company is pioneering a precision gene editing approach that has the potential to transform human health by achieving one of medicine's most elusive goals: to precisely "find & replace" any gene in the genome. Graphite Bio's UltraHDR™ gene editing platform takes CRISPR technology beyond cutting and harnesses the power of high-efficiency precision DNA repair, also known as homology directed repair (HDR), to precisely correct genetic mutations, replace entire disease-causing genes with functional genes or insert new genes into predetermined, safe locations. Additionally, the company is advancing the development of novel conditioning regimens to help bring curative therapies to more patients.

Graphite Bio was co-founded by academic pioneers in the fields of gene editing and gene therapy, including Maria Grazia Roncarolo, M.D., and Matthew Porteus, M.D., Ph.D. Learn more about the company by visiting www.graphitebio.com and following the company on LinkedIn and Twitter.

**Forward-Looking Statements**
Statements we make in this press release may include statements that are not historical facts and are considered forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements may be identified by words such as "aims," "anticipates," "believes," "could," "estimates," "expects," "forecasts," "goal," "intends," "may," "plans," "possible," "potential," "seeks," "will" and variations of these words or similar expressions that are intended to identify forward-looking statements. Any such statements in this press release that are not statements of historical fact, including statements regarding the clinical and therapeutic potential of our gene editing platform and our product candidates, submissions to regulators and the timing thereof, and our anticipated cash runway, may be deemed to be forward-looking statements. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Exchange Act and are making this statement for purposes of complying with those safe harbor provisions.

Any forward-looking statements in this press release are based on Graphite Bio's current views about our plans, intentions, expectations, strategies and prospects only as of the date of this release and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements, including the risk that we may encounter serious adverse events, undesirable side effects, or unexpected characteristics with respect to our product candidates. These risks concerning Graphite Bio's programs and operations are described in additional detail in our periodic filings with the SEC, including our most recently filed periodic report, and subsequent filings thereafter. Graphite Bio explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

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**Investors and Media:**
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