

Graphite Bio, Inc.
611 Gateway Blvd, Suite 120
South San Francisco, CA 94080

February 9, 2024

VIA EDGAR

Office of Life Sciences
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street NE
Washington, DC 20549
Attention: Ms. Doris Stacey Gama
Mr. Jason Drory
Mr. Eric Atallah
Ms. Lynn Dicker

**Re: Graphite Bio, Inc.
Acceleration Request for Registration Statement on Form S-4
File No. 333-275919**

**Requested Date: February 13, 2024
Requested Time: 4:15 p.m. Eastern Time**

Dear Ms. Gama, Mr. Drory, Mr. Atallah and Ms. Dicker:

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the "Act"), Graphite Bio, Inc. (the "Company") hereby requests that the effective date of the above-referenced registration statement (the "Registration Statement") be accelerated to February 13, 2024, at 4:15 p.m., Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Goodwin Procter LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Act.

Once the Registration Statement is effective, please orally confirm the event with our counsel, Goodwin Procter LLP by calling Andrew Goodman at (617) 570-1861. We also respectfully request that a copy of the written order from the Securities and Exchange Commission verifying the effective time and date of the Registration Statement be sent to our counsel, Goodwin Procter LLP, Attention: Andrew Goodman, by email to agoodman@goodwinlaw.com or by facsimile to (212) 937-3172.

If you have any questions regarding this request, please contact Andrew Goodman of Goodwin Procter LLP at (617) 570-1861.

Sincerely,

Graphite Bio, Inc.

By: /s/ Kimberlee C. Drapkin

Kimberlee C. Drapkin

Interim President and Chief Executive Officer

cc: Andrew Goodman, Goodwin Procter LLP
Maggie L. Wong, Goodwin Procter LLP
Shoaib Ghias, Goodwin Procter LLP
Tevia K. Pollard, Goodwin Procter LLP