

Unity Biotechnology, Inc.  
285 East Grand Ave.  
South San Francisco, CA 94080

December 7, 2023

**VIA EDGAR**

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
Office of Life Sciences  
Securities and Exchange Commission  
Washington, D.C. 20549  
Attention: Joshua Gorsky

Re: Unity Biotechnology, Inc.  
Registration Statement on Form S-3  
Filed on December 6, 2023  
File No. 333-275924 (the "**Registration Statement**")

Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 of the Rules and Regulations of the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended, Unity Biotechnology, Inc. (the "**Company**") hereby respectfully requests acceleration of the effective date of the Registration Statement, so that it may become effective at 4:30 p.m., Eastern Time, on December 8, 2023, or as soon thereafter as practicable.

Should any member of the staff of the Commission have any questions or comments with respect to this request, please contact our counsel, Haynes and Boone, LLP, attention: Alla Digilova, Esq. at (212) 659-4993.

Very truly yours,

UNITY BIOTECHNOLOGY, INC.

By: /s/ Anirvan Ghosh

Anirvan Ghosh  
Chief Executive Officer

cc: Alla Digilova, Esq., Haynes and Boone, LLP