VIA EDGAR

December 21, 2023

United States Securities and Exchange Commission Office of Industrial Applications and Services Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549

Re: Rapid Micro Biosystems, Inc.

Acceleration Request for Registration Statement on Form S-3

File No. 333-276081

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the "Act"), Rapid Micro Biosystems, Inc. (the "Company") hereby requests that the effective date of the above-referenced registration statement (the "Registration Statement") be accelerated to December 26, 2023, at 5:00 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 Adam V. Johnson at (212) 459-7072. If you have any questions regarding this request, please contact Adam V. Johnson of Goodwin Procter LLP at (212) 459-7072.

Sincerely,

RAPID MICRO BIOSYSTEMS, INC.

/s/ Sean Wirtjes

Sean Wirtjes Chief Financial Officer

cc: Robert Spignesi, *Rapid Micro Biosystems, Inc.*La-Rae Strawbridge, *Rapid Micro Biosystems, Inc.*Edwin M. O'Connor, *Goodwin Procter LLP*Adam V. Johnson, *Goodwin Procter LLP*