

Organovo Holdings, Inc.
Sorrento Valley Road, Suite 100
San Diego, California 92121

February 6, 2024

VIA EDGAR

Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-0406

Re: Organovo Holdings, Inc.
Registration Statement on Form S-3, Filed January 26, 2024
File No. 333-276722

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Organovo Holdings, Inc. (the "**Company**") hereby requests that the effectiveness of the Registration Statement on Form S-3 (Registration No. 333-276722) of the Company (the "**Registration Statement**"), filed with the Securities and Exchange Commission (the "**Commission**") on January 26, 2024, be accelerated so that such Registration Statement shall become effective at 4:30 p.m. (Eastern Time) on February 8, 2024, or as soon as possible thereafter.

It would be appreciated if, promptly after the Registration Statement has become effective, you would so inform our outside counsel, Samantha H. Eldredge of Paul Hastings LLP, by telephone at (650) 320-1838 or by email at samanthaeldredge@paulhastings.com. The Company hereby authorizes Ms. Eldredge to orally modify or withdraw this request for acceleration.

Sincerely,

ORGANOVO HOLDINGS, INC.

By: /s/ Keith Murphy

Keith Murphy
Executive Chairman

cc: Samantha H. Eldredge, Esq., Paul Hastings LLP