

**VivoSim Labs, Inc.**  
11555 Sorrento Valley Road, Suite 100  
San Diego, CA 92121

March 31, 2026

VIA EDGAR

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

**Re: VivoSim Labs, Inc.  
Registration Statement on Form S-1, as amended  
Initially Filed on March 27, 2026  
Registration No. 333-294716**

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, VivoSim Labs, Inc. (the “*Company*”) hereby respectfully requests that the effectiveness of the Registration Statement on Form S-1 (Registration No. 333-294716) of the Company, filed with the Securities and Exchange Commission on March 27, 2026 and amended on March 31, 2026 (the “*Registration Statement*”), be accelerated so that the Registration Statement shall become effective at 4:00 p.m. (Eastern Time) on March 31, 2026, or as soon as possible thereafter.

The Company hereby confirms that it is aware of its responsibilities under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, as they relate to the proposed offering of the securities specified in the Registration Statement.

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

Sincerely,

**VIVOSIM LABS, INC.**

By: /s/ Keith Murphy

Name: Keith Murphy

Title: Executive Chairman

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