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April 25, 2024

VIA EDGAR

Division of Corporate Finance United States Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549

Re: Pulse Biosciences, Inc. Amendment No.2 to Registration Statement on Form S-3 Filed April 23, 2024 File No. 333-278494

Dear Sir/Madam:

On behalf of Pulse Biosciences, Inc., a Delaware corporation (the "Company"), set forth below are responses (this "Response Letter") to the comments of the staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") contained in the letter dated April 24, 2024 (the "Comment Letter") relating to the Company's Registration Statement on Form S-3, File No. 333-278494, filed with the Commission on April 3, 2024, as amended by each of Amendment No. 1 filed on April 15, 2024 and Amendment No. 2 filed on April 23, 2024 (the "Registration Statement"). The Company has filed herewith Amendment No. 3 (the "Third Amendment") to the Registration Statement.

The headings and numbered paragraphs of this Response Letter correspond to the headings and paragraph numbers contained in the Comment Letter, and, to facilitate the Staff's review, we have reproduced the text of the Staff's comments in italicized print. Capitalized terms used herein and otherwise not defined herein shall have the meanings assigned to such terms in the Registration Statement.

Amendment No. 2 to Form S-3 filed April 23, 2024 Material U.S. Federal Income Tax Consequences, page 31

1. We acknowledge your revised disclosure in response to prior comment 1. Please revise to clearly articulate the opinion being rendered with respect to each material tax consequence being opined upon, including the receipt of the subscription rights. We also note your statement on page 32 that the tax discussion "assumes that the receipt by a holder of subscription rights with respect to such holder's common stock pursuant to this rights offering is non-taxable for U.S. federal income tax purposes." Please revise to remove language assuming certain tax consequences. For guidance, refer to Section III.C of Staff Legal Bulletin 19.

RESPONSE: Please see the revised disclosure on page 32 of the Third Amendment.

We believe we have been responsive to the Staff's comments. Please direct any questions concerning this letter to the undersigned at 212.589.4233 or afinerman@bakerlaw.com.

Sincerely,

/s/ Adam Finerman Adam Finerman Partner

cc: Kevin Danahy, Chief Executive Officer, Pulse Biosciences, Inc.