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April 23, 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.1 to Registration Statement on Form S-3 Filed April 15, 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 18, 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 Amendment No. 1 filed on April 15, 2024 (the "Registration Statement"). The Company has filed herewith Amendment No. 2 (the "Second 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.

<u>Amendment No. 1 to Registration Statement on Form S-3</u> <u>Material U.S. Federal Income Tax Consequences, page 31</u>

1. We note your response to comment 2, but we are not persuaded by your response and reissue the comment. Please file a tax opinion as an exhibit to the filing. We refer you to Section III.A.1 of Staff Legal Bulletin 19.

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that the Company has filed the tax opinion of Baker & Hostetler LLP as Exhibit 8.1 to the Second 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.