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June 2, 2020

Ms. Sasha Parikh
Ms. Vanessa Robertson
Ms. Irene Paik
Mr. Jeffrey Gabor
Division of Corporation Finance
Office of Life Sciences
Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549

Re: Lantern Pharma Inc.

Amendment No. 2 to Registration Statement on Form S-1

Filed May 19, 2020 File No. 333-237714

Ladies and Gentleman:

On behalf of our client, Lantern Pharma Inc. (the "Company"), we are submitting this letter in response to comments received from the staff (the "Staff") of Securities and Exchange Commission's ("SEC") by letter dated May 29, 2020, (the "Comment Letter") with respect to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed with the Commission on May 19, 2020 (the "Registration Statement").

For the Staff's convenience, the numbering of the paragraphs below corresponds to the numbering of the comments in the Comment Letter, the text of which we have restated in italicized type, followed by the Company's response. Page references in the responses correspond to the page numbers in the prospectus in the Amended Registration Statement.

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Dilution, page 62

1. Please revise your disclosure to clarify that the historical net tangible book value reflects the Series A preferred stock liquidation preference. Since the historical net tangible book value per share of \$(6.32) is based on 1,165,926 shares of common stock outstanding, please remove the disclosure that this was after giving effect to the stock split.

The purpose of this letter is to confirm our understanding with the Staff that the following changes will be made to the disclosure on page 62 of the prospectus in the final prospectus to be filed with the SEC pursuant to SEC Rule 424(b) by adding the phrase "the liquidation value of our" before the phrase "preferred stock divided by the number of shares of our common stock" and by substituting the word "before" for the word "after" prior to the phrase "giving effect to the 1.74 for 1 stock split..."

Consequently, the second paragraph under the Dilution section of the prospectus will read as follows:

As of March 31, 2020, we had a historical net tangible book value of approximately \$(7,365,888) or \$(6.32) per share of common stock. Our historical net tangible book value per share represents total tangible assets less total liabilities and the liquidation value of our preferred stock divided by the number of shares of our common stock outstanding as of March 31, 2020 before giving effect to the 1.74 for 1 stock split immediately prior to the closing of this offering.

Please contact me at (213) 358-6174 or my partner Daniel B. Eng at (415) 262-8508 with any questions or further comments regarding the Company's responses to the Staff's comments.

Very truly yours,

LEWIS BRISBOIS BISGAARD & SMITH LLP

/s/ Scott E. Bartel

Partner

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