



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

April 30, 2020

Panna Sharma
Chief Executive Officer
Lantern Pharma Inc.
1920 McKinney Avenue, 7th Floor
Dallas, Texas 75201

Re: Lantern Pharma Inc.
Registration Statement on Form S-1
Filed April 16, 2020
File No. 333-237714

Dear Mr. Sharma:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our February 20, 2020 letter.

Form S-1 filed April 16, 2020

Prospectus Summary, page 1

1. We note your revisions in response to our prior comment 3 and your disclosure on page 5 that you have selected NSCLC in non-smoking females as your lead proposed indication. To the extent you continue to include a pipeline table in the gatefold, please specify that you are studying LP-300 in females under "Our Portfolio" at the bottom of your graphic. Please also revise the pipeline tables on pages 2 and 3 to clarify that you have not initiated clinical trials for LP-300 and that you have selected NSCLC in non-smoking females as your lead indication. With respect to your pipeline table on page 2, please also revise to

indicate that you have out-licensed LP-100 to Oncology Venture and, if appropriate, consolidate the two arrows depicting LP-184 to be consistent with the other pipeline tables in your prospectus.

Market and Industry Data, page 60

2. We note your revised disclosures in response to prior comment 7, but you continue to caution investors not to place undue weight to industry data, projections and estimates. Please revise this statement to eliminate any implication that investors are not entitled to rely on the information included in your registration statement.

Capitalization, page 61

3. Please revise to remove cash from your Total Capitalization amount as cash is not a component of Capitalization.

Dilution, page 62

4. We note that your net tangible book value as of December 31, 2019 includes deferred offering costs. Please revise to calculate net tangible book value excluding any intangible assets such as deferred offering costs. In addition, it appears that the net tangible book value per share is based on 2,538,583 shares of common stock outstanding as of December 31, 2019, after giving effect to the conversion of all outstanding shares of Series A preferred stock into 1,401,647 shares of common stock. Please explain why net tangible book value per share was not calculated based on the 1,136,938 shares outstanding reflected in the balance sheet.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Components of Our Results of Operations

Research and Development Expense, page 66

5. As your research and development expense increased significantly (37%) from December 31, 2018 to December 31, 2019, we believe additional information related to the increase would be beneficial to an investor and we reissue our comment in part. You state in the response that you do not track your research and development costs by project. Please disclose that fact and include an explanation for why you do not maintain and evaluate research and development costs by project. Expand your disclosure on page 67 to break out the amount of the increase in research and development by the type of expense similar to the disclosure you included for the change in general and administrative expense.

Business

Oncology Venture, page 116

6. We note that Oncology Venture has agreed to directly pay AF Chemicals, which amounts will then be deducted from payments to be made to you. Please revise your discussion regarding the Oncology Venture agreement to disclose the net payments that Oncology

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Venture will make to you. For example, disclose the portion of the \$21 million maximum aggregate amount of development milestone payments that you will receive from Oncology Venture.

General

7. We note your revisions in response to our prior comments 1 to 3. On further review, it appears that the inside cover page of the prospectus includes extensive narrative text that repeats information already contained in the summary and business sections. Text in this context should only be used to the extent necessary to explain the visuals in the artwork. Please remove or substantially revise the inside cover page of the prospectus. For guidance, refer to Question 101.02 of the Securities Act Forms Compliance and Disclosure Interpretations.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Sasha Parikh at 202-551-3627 or Vanessa Robertson at 202-551-3649 if you have questions regarding comments on the financial statements and related matters. Please contact Jeffrey Gabor at 202-551-2544 or Irene Paik at 202-551-6553 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Scott E. Bartel, Esq.