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

DIVISION OF
CORPORATION FINANCE

January 11, 2021

Kevin R. Lind
President, Chief Executive Officer and Chief Financial Officer
Longboard Pharmaceuticals, Inc.
6154 Nancy Ridge Drive
San Diego, CA 92121

Re: Longboard Pharmaceuticals, Inc.
Draft Registration Statement on Form S-1
Submitted December 15, 2020
CIK No. 0001832168

Dear Mr. Lind:

We have reviewed your draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Draft Registration Statement on Form S-1 submitted December 15, 2020

Prospectus Summary, page 1

1. We note your statements on page 1 and elsewhere that your product candidates are highly selective. Please remove all statements that present your conclusions regarding the efficacy of your product candidate as this is a determination within the authority of the U.S. Food and Drug Administration and comparable regulatory bodies or advise why this disclosure is appropriate.

2. We note that "5-HT2a and 5-HT2b receptor subtypes have been known to be associated with significant adverse side effects." Please revise to briefly describe the type and severity of the adverse side effects associated with 5-HT2a and 5-HT2b receptor subtypes.

3. Please revise to clarify the relationship, if any, between the expanded access program referenced on page 2 and the Phase 3 clinical trial referenced on page 4. Please also revise to briefly explain what an expanded access program is.

4. On page 3 you state that Arena designed LP352, LP143, and LP659 to have distinct chemistry and therapeutic profiles from Arena's other product candidates with similar mechanisms of actions. Please revise to briefly explain how your product candidates are distinct from Arena's.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Royalty Purchase Agreement, page 78

5. Please revise to disclose the material terms of your Royalty Purchase Agreement, including, without limitation, the upfront purchase fee paid, the aggregate milestones payable, the royalties payable, the term of the agreement, and termination provisions.

Business

Our Product Candidates

LP352, an oral, centrally acting, highly selective 5-HT2c superagonist, page 93

6. On page 97 you state that "Lorcaserin has been tested in a small study of "off-label" use in five children with Dravet syndrome, for which all patients in the study exhibited some degree of decreased seizure activity." Please revise to more specifically describe the results of the study.

7. We note your acknowledgement that the studies included in the comparison table on page 97 were not head-to-head studies. Please tell us why you believe these comparisons are appropriate. Address in your response whether you expect to be able to rely on such comparisons to support an application for marketing approval.

8. We note your statement on page 97 that LP352 has potential "best-in-class" selectivity. This term suggests that your product candidates are effective and likely to be approved. Please delete this reference. If your use of the term was designed to convey your belief that your product candidates are based on a differentiated technology or approach, you may further discuss how your technology or approach differs from those of your competitors.

9. Please revise page 99 to state the number of subjects reflected in the results of Parts A and B of your Phase 1 clinical trial. Additionally, please revise to explain what you mean by "no significant food effect" and explain the target plasma exposure obtained.

LP143, a centrally acting, highly selective, full CB2 agonist, page 99

10. Please revise page 102 to describe the LP143 and LP659 pre-clinical studies in further detail, including the number of subjects and duration, and, if powered for statistical significance, p-values.

LP659, a centrally acting, highly selective S1P1,5 modulator, page 102

11. Please revise page 103 to explain the basis for the statement that the S1P1 receptor has been "well validated."

License Agreement with Arena, page 104

12. Please revise page 104 to describe the "certain products" commercialized by Arena and any upfront payments paid or payable under the agreement. Additionally, on page 105 you mention that the Arena License Agreement requires "payment of milestones and/or royalties." To the extent applicable, please revise your description of the agreement on page 104 to include a description of any milestone payment provisions. We also note that on page 104 you say the term will expire on the latest to occur of several events, including the expiration date of the last valid claim on a country-by-country basis. Please revise to clarify when these claims are expected to expire.

Intellectual Property, page 105

13. Please revise to clarify which jurisdictions have granted patents for compositions of matter and methods of treatment and their respective expiration dates. Additionally, please revise to disclose the expected expiration dates for pending patent applications and the identification of all applicable jurisdictions where patents applications are pending.

Certain Relationships and Related Person Transactions, page 142

14. Please revise page 142 to state the fees payable under the Services Agreement with Arena pursuant to Item 404(a)(3) of Regulation S-K.

General

15. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

You may contact Jeanne Bennett at 202-551-3606 or Mary Mast at 202-551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Margaret Schwartz at 202-551-7153 or Jeffrey Gabor at 202-551-2544 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Steve Przesmicki, Esq.