



DIVISION OF
CORPORATION FINANCE

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

September 2, 2022

Vininder Singh
Chief Executive Officer
BullFrog AI Holdings, Inc.
325 Ellington Blvd., Unit 317
Gaithersburg, MD 20878

**Re: BullFrog AI Holdings, Inc.
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted August 15, 2022
CIK No. 0001829247**

Dear Mr. Singh:

We have reviewed your amended 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.

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

Prospectus Summary

Business Overview, page 1

1. We note your response to prior comment 2. Please remove the statements claiming your platform can "mitigate risk" in therapeutic development and "increase the odds-of-success" for clinical trials as these statements are speculative given the current development status of your platform.

Johns Hopkins University - Mebendazole License, page 5

2. We note your revised disclosure in response to prior comment 5. Please tell us how these study results assessed efficacy. In this regard, it is not clear how the 41.7% and 25%

figures should be assessed. In discussing results, please also note that it should be clear whether the study was powered to assess efficacy and whether the results are statistically significant. Please also revise page F-21 to remove the statement asserting that Mebendazole demonstrated "long-term safety."

Capitalization, page 23

3. We note the footnote disclosure that you added below your Capitalization table in response to prior comment 6. Typically, in situations where conversions occur at the time of an IPO, the Capitalization table includes three columns - an actual column, a pro forma column showing the impact of any conversions, and a pro forma, as adjusted column which gives effect to the sale of shares in the offering. In the interest of clarity, please consider revising your Capitalization table accordingly.

Use of Proceeds, page 23

4. We note your response to prior comment 7. Once the size of the offering is known, please further revise this section to specify the amount of proceeds to be allocated to each intended use disclosed in this section.

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

Liquidity and Capital Resources, page 30

5. You indicate in response to prior comment 9 that you are in the process of obtaining a current valuation for your 2022 equity issuances and that your underwriters will determine the IPO pricing. Once you have an estimated offering price or range, please explain to us how the fair value of the common stock underlying your equity issuances was determined and the reasons for any differences between the recent valuations of your common stock leading up to the initial public offering and the estimated offering price. This information will help facilitate our review of your accounting for equity issuances including stock compensation. Please discuss with the staff how to submit your response.

Business

Our Products, page 32

6. Please further revise the discussion of your siRNA and Mebendazole product candidates to clarify their current development status. In this regard, revise the "Current Market" header of the table appearing on this page to reflect that your product candidates have not yet received regulatory approval for commercialization. Please also disclose any development activities that you have conducted on these two candidates.

Vininder Singh
BullFrog AI Holdings, Inc.
September 2, 2022
Page 3

Our Market Opportunity, page 36

7. We note your response to prior comment 13 and reissue. Please further revise to provide narrative disclosure explaining each graphic that is depicted in this section. Please also balance the disclosure of a "\$47.1 billion serviceable market" with your current market share and any steps that must be taken before commercializing your platform.

Intellectual Property, page 37

8. We note your response to prior comment 14 and reissue in part. Please revise to include the ownership status and expiration dates, or potential expiration dates if granted, for your patents and patent applications.

You may contact Ibolya Ignat at 202-551-3636 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Tyler Howes at 202-551-3370 or Joe McCann at 202-551-6262 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Arthur Marcus, Esq.