



DIVISION OF
CORPORATION FINANCE

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

November 3, 2022

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

Re: BullFrog AI Holdings, Inc.
Registration Statement on Form S-1
Filed October 19, 2022
File No. 333-267951

Dear Vininder Singh:

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.

Form S-1 filed October 19, 2022

Our bfLEAP Analytics Platform, page 3

1. We refer to the updated disclosure you provide concerning a new JHU-APL license which you executed on July 8, 2022. Please revise to describe the additional technology that you licensed so that it is clear whether the technology relates solely to development of your AI/ML platform and/or whether it includes intellectual property covering new drug programs. In this regard, we note that your revised Use of Proceeds disclosure on page 23 references planned allocations to "newly licensed drug programs" and that you also removed disclosure indicating that you planned to use offering proceeds to fund the Mebendazole and siRNA programs, which are the only two drug programs highlighted in the Summary and explained in the Business section.

John Hopkins University - Mebendazole License, page 5

2. We note your revised disclosure in response to prior comment 2 and reissue. It remains unclear what basis you have to state that your Phase 1 trial assessed efficacy. Please remove the statement or revise to explain whether the Phase 1 trial was powered to assess efficacy and whether the results were statistically significant.

Planned Reverse Stock Split, page 6

3. We note that you intend to affect a 1-for-7 reverse stock split of your common stock prior to the effectiveness of the offering. We remind you that in accordance with SAB Topic 4:C, you will need to revise your financial statements and your disclosures throughout the filing to give effect to the expected stock split. Your auditor's report must also be updated to reflect the reverse stock split in accordance with Auditing Standard (AS) 3110.05.

Capitalization, page 23

4. Your introduction to your capitalization table indicates that the table sets forth your cash and cash equivalents as of June 30, 2022. Please revise to indicate that it also presents your capitalization and indebtedness as of this date.

Use of Proceeds, page 23

5. We note your revised disclosure in response to prior comment 4. Please further revise your Use of Proceeds section to identify each newly licensed drug program that you plan to fund and the attendant dollar amount attributable to each program. Also, state how far in the development process you estimate the allocated proceeds from this offering will enable you to reach for each newly licensed drugs. Please also revise to set forth the interest rate and maturity of any indebtedness to be discharged with the proceeds from this offering. If any of the indebtedness to be discharged was incurred within one year, describe the use of the proceeds of such indebtedness other than short-term borrowings used for working capital. Refer to Item 504 of Regulation S-K for guidance.

Business

Our Products, page 33

6. We note your revised disclosure in response to prior comment 6 and reissue in part. Please replace the "Current Market" header on this chart with a more appropriate description, as disclosure elsewhere indicates that neither of your clinical candidates are currently approved for commercial sale. Please also revise this section to describe any development activities you have conducted for the siRNA program. In this regard, you indicate that the program is currently in the preclinical stage of development but there is no discussion of what work has been conducted, is currently being conducted or is planned for the future. To the extent you have not yet conducted any development activities on this program, please revise to make this point clear throughout the

prospectus.

Our Market Opportunity, page 36

7. We note your revised disclosure in response to prior comment 7 and reissue in part. Please further revise this section to explain what steps you will need to take before you are able to commercialize the product candidates discussed in this section. For instance, please explain that it may be costly or difficult to acquire intellectual property rights to the failed drugs and that you may need to conduct significant preclinical work and clinical trial work and obtain FDA approval prior to any commercialization efforts.

Intellectual Property, page 37

8. We note your revised disclosure in response to prior comment 8 and reissue in part. Please revise to include the expiration dates or potential expiration dates, if granted, for each patent or patent application licensed from George Washington University that is disclosed in this section.

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 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.