

December 8, 2022

Tyler Howes  
Division of Corporation Finance  
Office of Life Sciences  
Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549

**Re: BullFrog AI Holdings, Inc.  
Amendment No. 2 to Draft Registration Statement on Form S-1  
Submitted November 28, 2022  
File No. 333-267951**

Dear Mr. Howes:

On behalf of BullFrog AI Holdings, Inc. (the "Company"), this letter responds to comments provided by the staff of the Division of Corporation Finance, Office of Life Sciences (the "Staff") of the Securities and Exchange Commission (the "Commission") to the undersigned on December 6, 2022 regarding Amendment No.2 ("Amendment No. 2") to the Registration Statement on Form S-1 (the "Registration Statement"), which was submitted to the Commission on November 28, 2022. Please note that we have also filed the requested exhibits (Exhibit #'s 10.5 and 10.9). The Company has not yet used any investor presentation.

Concurrent with the submission of this letter, the Company is filing via EDGAR Amendment No. 3 to the Registration Statement ("Amendment No. 3"), which reflects the Company's responses to the comments received by the Staff and certain updated information. For your convenience, we have set forth below the comment of your letter followed by the Company's response thereto.

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

Prospectus Summary  
Business Overview, page 1

1. ***We note your disclosure here that the July 8, 2022 amendment "supersedes" the previous license. However, Exhibit 10.7 indicates that the 2018 Licensing Agreement with John Hopkins University is not fully superseded by the July 8, 2022 amendment. Please revise accordingly, or advise. Please also file the 2018 Licensing Agreement entered into with John Hopkins University as an exhibit to your registration statement.***

**Response:** The Company respectfully acknowledges the Staff's comment and has revised the disclosure to state that the July 8, 2022 amendment provides the Company with new intellectual property and also encompasses most of the intellectual property from the February 2018 license. In addition, the Company has filed the 2018 Licensing Agreement with John Hopkins University as exhibit 10.5 in Amendment No. 3.

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Management's Discussion and Analysis of Financial Condition and Results of Operations  
Financial operations overview  
Research and Development Costs and Expenses, page 31

2. ***You disclose that to-date your financial statements have not reflected research and development expenses as your two acquired drug development programs were not licensed until 2022 and you have not yet initiated development activities. Please explain how you considered the guidance in ASC 730-20-25-2(c) in determining that the amounts paid to acquire/license the intellectual property rights associated with your drug development programs should not be classified as research and development expenses in your interim financial statements for the nine months ended September 30, 2022.***

**Response:** The Company respectfully acknowledges the Staff's comment and has classified the amounts paid to acquire/license the intellectual property rights associated with your drug development programs as research and development expenses after considering the guidance in ASC 730-20-25.

Licenses, page 39

3. ***Please revise this section to discuss the material terms of the licensing agreement entered into with John Hopkins University on October 13, 2022 for the rights to commercialize N-substituted prodrugs of mebendazole. Please also file this agreement as an exhibit to this registration statement or advise why you believe it is not required to be filed pursuant to Item 601(b)(10) of Regulation S-K.***

**Response:** The Company respectfully acknowledges the Staff's comment and has revised this section to include the material terms of the licensing agreement. In addition, the Company has filed the licensing agreement as exhibit 10.9 in Amendment No. 3.

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Please do not hesitate to contact our counsel Arthur Marcus at (212) 930-9700 with any questions or comments regarding this correspondence. Thank you.

Sincerely,

/s/ Vininder Singh  
Chief Executive Officer

cc Arthur Marcus, Esq.