

1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599
TEL 215.665.8500
FAX 215.864.8999
www.ballardspahr.com

Peter Jaslow
Tel: 856.761.3447
Fax: 215.864.8999
jaslowp@ballardspahr.com

September 17, 2025

By *EDGAR*

Division of Corporation Finance
Office of Life Sciences
United States Securities and Exchange Commission
Washington, D.C. 20549
Attn: Tracie Mariner
Jenn Do

Re: BullFrog AI Holdings, Inc.
Form 10-K for Fiscal Year Ended December 31, 2024
File No. 001-41600

Ladies and Gentlemen:

This letter responds to the Staff's comment letter dated September 10, 2025 to Josh Blacher, the Chief Financial Officer of BullFrog AI Holdings, Inc. (the "Company"), regarding the above-captioned Annual Report on Form 10-K (the "Form 10-K"). For your convenience, the Staff's comments have been reproduced, followed by the Company's response to such comments.

Financial Statements, page F-1

1. We note you have entered into agreements with the Lieber Institute for Brain Development, Eleison Pharmaceuticals, Inc., and Sygnature Discovery Limited. Please address the following:
 - Revise your disclosure, in future filings, as applicable, to provide a more comprehensive discussion of their terms, including but not limited to, the rights and obligations of each party, consideration, amounts paid and received to date, milestone amounts, royalty amounts, and termination provisions.

RESPONSE: The Company acknowledges the Staff's comment and advises the Staff that it intends to revise the disclosure in its future filings to provide more comprehensive disclosure of the terms of such agreements. The Company respectfully notes that the Eleison Pharmaceuticals, Inc. ("Eleison") and Sygnature Discovery Limited ("Sygnature") agreements were entered into by the Company after the period covered by the Form 10-K. Accordingly, such agreements were not relevant to the Company's financial statements for the periods covered by the report.

- File the related agreements, or tell us where you have previously filed them. Alternatively, tell us why they are not required to be filed pursuant to Item 601(b)(10) of Regulation S-K.

RESPONSE: The Company advises the Staff that the Company's agreements with the Lieber Institute for Brain Development were filed as Exhibits 10.11 and 10.12 to the Form 10-K. The Company respectfully submits, however, that it does not believe the agreements with Eleison and Sygnature are material contracts required to be filed pursuant to Item 601(b)(10) of Regulation S-K. Item 601(b)(10) of Regulation S-K requires the filing of material contracts not made in the ordinary course of business. Item 601(b)(10)(ii)(B) provides that if an agreement is one that ordinarily accompanies the kind of business conducted by the issuer, it will be deemed to be made in the ordinary course of business, and therefore need not be filed unless the agreement is one upon which a registrant's business is substantially dependent.

The Company believes it entered into these agreements in the ordinary course of its commercialization efforts, and the Company's business is not substantially dependent on either of these agreements. The Company's agreement with Eleison is a customer agreement for certain limited services to be provided by the Company to Eleison. Upon completion of such services, the Company anticipates entering into a subsequent agreement for additional, follow-on services. As part of the Company's business plan, the Company expects to enter into many such customer agreements for similar services with other customers. Similarly, the agreement with Sygnature supports the Company's commercialization efforts by providing for the joint marketing of each party's products and services to the other party's customers. Under the agreement, each party is responsible to notify the other party of any potential customers for the other party's products and services. The party providing the product or service is ultimately responsible for entering into a commercial agreement with the potential customer. Such marketing efforts are, however, in addition to the Company's ongoing sales efforts and part of the Company's overall commercialization strategy. Accordingly, both agreements are made in the ordinary course of business, and the Company is not "substantially dependent" on any such agreement, nor do either agreement qualify under any of the other definitions of "material contract" set forth in Item 601(b)(10) of Regulation S-K. The Company will, however, continue to evaluate its relationships with such counterparties to determine whether its business becomes "substantially dependent" on either agreement.

We acknowledge that it is the Company's and management's responsibility for the accuracy and adequacy of the Company's disclosures. Please contact me at 856.761.3447 with any questions or comments you may have regarding this response.

Very truly yours,

/s/ Peter Jaslow
Peter Jaslow

cc: Vininder Singh
Josh Blacher

PJ/mbl
