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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2024

OR

□ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 001-41600

BULLFROG AI HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

Nevada	**84-4786155**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

325 Ellington Blvd., Unit 317
Gaithersburg, MD 20878
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (240) 658-6710

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No □

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No □.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	□	Accelerated Filer	□
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging Growth Company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. □

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes □ No ☒

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading symbol**	**Name of each exchange on which registered**
Common Stock $0.00001 par value per share	**BFRG**	**The Nasdaq Stock Market LLC (The Nasdaq Capital Market)**
Tradeable Warrants	**BFRGW**	**The Nasdaq Stock Market LLC (The Nasdaq Capital Market)**

The number of shares of the registrant's common stock issued and outstanding, as of August 7, 2024 was 7,850,550.

BULLFROG AI HOLDINGS, INC.

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FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, or the "Securities Act," and Section 21E of the Securities Exchange Act of 1934 or the "Exchange Act." These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from historical results or anticipated results.

In some cases, you can identify forward-looking statements by terms such as "may," "intend," "might," "will," "should," "could," "would," "expect," "believe," "anticipate," "estimate," "predict," "potential," or the negative of these terms. These terms and similar expressions are intended to identify forward-looking statements. The forward-looking statements in this report are based upon management's current expectations and beliefs, which management believes are reasonable. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor or combination of factors, or factors we are unaware of, may cause actual results to differ materially from those contained in any forward-looking statements. You are cautioned not to place undue reliance on any forward-looking statements. These statements represent our estimates and assumptions only as of the date of this report. Except to the extent required by federal securities laws, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

You should be aware that our actual results could differ materially from those contained in the forward-looking statements due to a number of factors, including:

- our future financial performance, including our revenue, costs of revenue, operating expenses and profitability;
- the sufficiency of our cash and cash equivalents to meet our liquidity needs;
- our predictions about the proprietary development, digital transformation technology and bio health businesses and their respective market trends;
- our ability to attract and retain customers in all our business segments to purchase our products and services;
- the availability of financing for smaller publicly traded companies like us;
- our ability to successfully expand in our three principal business markets and into new markets and industry verticals; and
- our ability to effectively manage our growth and future expenses.

Other risks and uncertainties include such factors, among others, as market acceptance and market demand for our products and services, pricing, the changing regulatory environment, the effect of our accounting policies, industry trends, adequacy of our financial resources to execute our business plan, our ability to attract, retain and motivate key personnel, and other risks described from time to time in periodic and current reports we file with the United States Securities and Exchange Commission, or the "SEC." You should consider carefully the statements under this report, which address additional factors that could cause our actual results to differ from those set forth in the forward-looking statements and could materially and adversely affect our business, operating results and financial condition. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the applicable cautionary statements.

PART 1. FINANCIAL INFORMATION

Item 1. Financial Statements

Bullfrog AI Holdings, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)

	June 30, 2024	December 31, 2023
Assets		
Current assets		
Cash and cash equivalents	$ 5,614,088	$ 2,624,730
Prepaid expenses	457,355	145,882
Total current assets	6,071,443	2,770,612
Property and equipment, net	5,112	5,974
Total assets	$ 6,076,555	$ 2,776,586
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 82,016	$ 103,656
Accrued expenses	268,437	80,694
Short term insurance financing	341,040	-
Total current liabilities	691,493	184,350
Total liabilities	691,493	184,350
Stockholders' equity		
Series A Convertible Preferred stock, $0.00001 par value, 5,500,000 shares authorized; 73,449 shares issued and outstanding as of June 30, 2024 and December 31, 2023.	1	1
Common stock, $0.00001 par value, 100,000,000 shares authorized; 7,850,550 and 6,094,644 shares issued and outstanding as of June 30, 2024 and December 31, 2023, respectively.	79	61
Additional paid-in capital	18,672,120	12,347,098
Accumulated deficit	(13,287,138)	(9,754,924)
Total stockholders' equity	5,385,062	2,592,236
Total liabilities and stockholders' equity	$ 6,076,555	$ 2,776,586

See accompanying notes to unaudited condensed consolidated financial statements.

Bullfrog AI Holdings, Inc.
Condensed Consolidated Statements of Operations
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	**2023**	**2024**	**2023**
Revenue				
Revenue	$ -	$ -	$ -	$ -
Total revenue	-	-	-	-
Cost of goods sold				
Cost of goods sold	-	-	-	-
Total cost of goods sold	-	-	-	-
Gross profit	-	-	-	-
Operating expenses				
Research and development	513,699	273,671	1,065,825	643,604
General and administrative	1,168,264	1,263,299	2,581,856	2,084,011
Total operating expenses	1,681,963	1,536,970	3,647,681	2,727,615
Loss from operations	(1,681,963)	(1,536,970)	(3,647,681)	(2,727,615)
Other income (expense), net				
Interest expense, net	(7,899)	(10,841)	(11,172)	(71,122)
Loss on conversion of notes	-	-	-	(92,959)
Other income, net	78,216	67,413	143,413	85,751
Total other income (expense), net	70,317	56,572	132,241	(78,330)
Net loss	(1,611,646)	(1,480,398)	(3,515,440)	(2,805,945)
Deemed dividend related to warrant exercise price adjustment	-	-	(16,774)	-
Net loss attributable to common stockholders	$ (1,611,646)	$ (1,480,398)	$ (3,532,214)	$ (2,805,945)
Net loss per common share attributable to common stockholders - basic and diluted	$ (0.20)	$ (0.24)	$ (0.46)	$ (0.51)
Weighted average number of shares outstanding - basic and diluted	8,124,834	6,055,537	7,756,671	5,451,138

See accompanying notes to unaudited condensed consolidated financial statements.

Bullfrog AI Holdings, Inc.
Condensed Consolidated Statements of Changes in Stockholders' Equity
(Unaudited)

	Series A Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount			
Balance at December 31, 2022	73,449	$ 1	4,021,935	$ 40	$ 1,341,662	$ (4,399,055)	$ (3,057,352)
Stock-based compensation	-	-	-	-	127,450	-	127,450
Issuance of common stock and warrants, net of issuance costs	-	-	1,297,318	13	7,293,638	-	7,293,651
Issuance of common stock for services	-	-	7,692	1	49,999	-	50,000
Conversion of convertible debt to common stock	-	-	331,166	3	1,535,612	-	1,535,615
Net loss	-	-	-	-	-	(1,325,547)	(1,325,547)
Balance at March 31, 2023	73,449	1	5,658,111	57	10,348,361	(5,724,602)	4,623,817
Stock-based compensation	-	-	-	-	262,267	-	262,267
Issuance of common stock pursuant to warrant exercises	-	-	436,533	4	1,494,654	-	1,494,658
Net loss	-	-	-	-	-	(1,480,398)	(1,480,398)
Balance at June 30, 2023	73,449	$ 1	6,094,644	$ 61	$ 12,105,282	$ (7,205,000)	$ 4,900,344
Balance at December 31, 2023	73,449	$ 1	6,094,644	$ 61	$ 12,347,098	$ (9,754,924)	$ 2,592,236
Stock-based compensation	-	-	-	-	335,417	-	335,417
Issuance of common stock and warrants, net of issuance costs	-	-	1,247,092	13	5,674,638	-	5,674,651
Issuance of common stock pursuant to warrant exercises	-	-	508,814	5	105,811	-	105,816
Deemed dividend related to warrant price adjustment	-	-	-	-	16,774	(16,774)	-
Net loss	-	-	-	-	-	(1,903,794)	(1,903,794)
Balance at March 31, 2024	73,449	1	7,850,550	79	18,479,738	(11,675,492)	6,804,326
Stock-based compensation	-	-	-	-	192,382	-	192,382
Net loss	-	-	-	-	-	(1,611,646)	(1,611,646)
Balance at June 30, 2024	73,449	$ 1	7,850,550	$ 79	$ 18,672,120	$ (13,287,138)	$ 5,385,062

See accompanying notes to unaudited condensed consolidated financial statements.

Bullfrog AI Holdings, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	Six Months Ended June 30,	
	2024	**2023**
Cash flows from operating activities:		
Net loss	$ (3,515,440)	$ (2,805,945)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	862	862
Stock-based compensation	527,799	389,717
Shares issued for services	-	50,000
Loss on conversion of notes	-	92,959
Amortization of debt discount	-	20,000
Changes in operating assets and liabilities:		
Prepaid expenses	(311,473)	(560,606)
Accounts payable	(21,640)	(53,279)
Accrued expenses	187,743	(723,219)
Net cash used in operating activities	(3,132,149)	(3,589,511)
Cash flows from investing activities:		
Purchases of property and equipment	-	-
Net cash used in investing activities	-	-
Cash flows from financing activities:		
Proceeds from issuance of common stock and warrants, net of issuance costs	5,674,651	7,293,651
Proceeds from warrant exercises	105,816	1,494,658
Proceeds from notes payable	-	100,000
Payments on notes payable	-	(319,950)
Proceeds from short term insurance financing	561,885	697,534
Payments on short term insurance financing	(220,845)	(274,483)
Net cash provided by financing activities	6,121,507	8,991,410
Net increase in cash and cash equivalents	2,989,358	5,401,899
Cash and cash equivalents, beginning of period	2,624,730	57,670
Cash and cash equivalents, end of period	$ 5,614,088	$ 5,459,569
Supplemental cash flow information:		
Cash paid for interest	$ 11,172	$ 93,916
Cash paid for taxes	$ -	$ -
Supplemental non-cash activity		
Issuance of common stock upon conversion of notes payable	$ -	$ 1,535,615

See accompanying notes to unaudited condensed consolidated financial statements.

1. Organization and Nature of Business

Description of Business

Bullfrog AI Holdings, Inc. ("we", "our" or the "Company") was incorporated in the State of Nevada in February 2020. Bullfrog AI Holdings, Inc. is the parent company of Bullfrog AI, Inc. and Bullfrog AI Management, LLC which were incorporated in Delaware and Maryland, in 2017 and 2021, respectively. All of our operations are currently conducted through Bullfrog AI Holdings, Inc., which began operations in February 2020. We are a company focused specifically on advanced AI/ML-driven analysis of complex data sets in medicine and healthcare. Our objective is to utilize our platform for a precision medicine approach to drug asset enablement through external partnerships and selective internal development.

Most new therapeutics will fail at some point in preclinical or clinical development. These failures are the primary drivers for the high cost of developing new therapeutics. A major part of the difficulty in developing new therapeutics is efficient integration of complex and highly dimensional data generated at each stage of development to de-risk subsequent stages of the development process. Artificial Intelligence and Machine Learning (AI/ML) has emerged as a digital solution to help address this problem.

We use artificial intelligence and machine learning to advance medicines for both internal and external projects. Most current AI/ML platforms still fall short in their ability to synthesize disparate, high-dimensional data for actionable insight. Our analytical platform is composed of an ensemble of state-of-the-art machine learning and artificial intelligence models. Our core platform technology, named bfLEAP™ is an analytical AI/ML platform developed at The Johns Hopkins University Applied Physics Laboratory (JHU-APL) which is able to surmount the challenges of scalability and flexibility currently hindering researchers and clinicians by providing a more precise, multi-dimensional understanding of their data. We are deploying our analytical platform, including bfLEAP™, for use at several critical stages of development for internal programs and through strategic partnerships and collaborations with the intention of streamlining data analytics in therapeutics development, decreasing the overall development costs by decreasing failure rates for new therapeutics, and impacting the lives of countless patients that may otherwise not receive the therapies they need.

The proprietary analytical platform utilizes both supervised and unsupervised machine learning. As such, it is able to reveal real and meaningful connections in the data without the need for a priori hypothesis. Algorithms used in the platform are designed to handle highly imbalanced data sets and successfully identify combinations of factors that are associated with outcomes of interest. Our platform leverages models that use both correlative and causative machine learning and artificial intelligence approaches which provide a comprehensive approach to predictive analysis which is expected to lead to meaningful insights including the molecular drivers of disease. In this regard, with our access to proprietary data sets such as our strategic data and commercialization agreements with the Lieber Institute for Brain Development ("LIBD"), we have increased our internal efforts on target discovery.

Our goal is to improve the odds of success at any stage of pre-clinical and clinical therapeutics development, for in-house programs, and for our strategic partners and collaborators. Our business model includes enabling the success of ongoing clinical trials and rescuing late stage failed drugs (i.e., Phase 2 or Phase 3 clinical trial failures) by bringing them in-house for development prior to eventual divestiture; although, we also consider entering collaborations for earlier stage drugs. We pursue our drug asset enhancement business by leveraging the powerful and proven bfLEAP™ AI/ML platform initially developed at JHU-APL. We believe the bfLEAP™ analytics platform is a potentially disruptive tool for analysis of pre-clinical and/or clinical data sets, such as the robust pre-clinical and clinical trial data sets being generated in translational R&D and clinical trial settings.

Liquidity and Going Concern

The Company has had negative cash flows from operations and operated at a net loss since inception. In the first quarter of 2023, we completed our initial public offering ("IPO"). In the first quarter of 2024, we received net proceeds of approximately $5.7 million from an underwritten secondary public offering of common stock and warrants. As of June 30, 2024, the Company has a cash balance of approximately $5.6 million. In the absence of significant revenues in 2024, the Company believes that its capital resources are sufficient to fund planned operations for approximately 9 months from the date of this filing.

Accordingly, we will require additional capital to continue to execute our strategy. We anticipate raising this additional capital through various avenues including sales of equity securities, debt transactions, licensing agreements and collaborative arrangements. Although management believes that such funding sources will be available, there can be no assurance that any such arrangements will be consummated to provide sufficient capital when needed to allow us to continue our operations, or if available, on terms acceptable to us. If we do not raise sufficient funds in a timely manner, among other things, we may be forced to delay, scale back or eliminate some or all our research and product development programs and/or our capital expenditures or to enter into arrangements on unfavorable terms. We currently do not have commitments for future funding from any source.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates continuity of operations, realization of assets, and satisfaction of liabilities in the ordinary course of business. Accordingly, our consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements include the accounts of Bullfrog AI Holdings, Inc. and our wholly owned subsidiaries and have been prepared in conformity with United States generally accepted accounting principles ("GAAP") for interim financial information. All intercompany accounts and transactions have been eliminated in consolidation.

The condensed consolidated statements are unaudited and should be read in conjunction with the consolidated financial statements and related notes included in our 2023 Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 29, 2024. The unaudited condensed consolidated financial statements have been prepared on a basis consistent with the audited annual consolidated financial statements included in the Form 10-K and, in the opinion of management, include all adjustments of a normal recurring nature necessary to fairly state our financial position, our results of operations, and cash flows.

The results for the six months ended June 30, 2024 are not necessarily indicative of the operating results expected for the year ending December 31, 2024 or any other future period.

In February 2023, we completed a 1-for-7 reverse split of our common stock. Stockholders' equity and all references to shares and per share amounts in the accompanying unaudited condensed consolidated financial statements have been adjusted to reflect the reverse stock split for all periods presented.

Revenue Recognition

The Company recognizes revenue based on the following five step model:

- **Identification of the contract with a customer**
  This step outlines the criteria that must be met when establishing a contract with a customer to supply goods or services.
- **Identification of the performance obligations in the contract**
  This step describes how distinct performance obligations in the contract must be handled.
- **Determination of the transaction price**
  This step outlines what must be considered when establishing the transaction price, which is the amount the business expects to receive for transferring the goods or services to the customer.
- **Allocation of the transaction price to the performance obligations in the contract**
  This step outlines guidelines for allocating the transaction price across the contract's separate performance obligations, and is what the customer agrees to pay for the goods or services.
- **Recognition of revenue when, or as, the Company satisfies a performance obligation**
  Revenue can be recognized as the business meets each performance obligation. This step specifies how that should happen.

Contract Services

The Company anticipates that the majority of its revenues to be recognized in the near future will result from discovery and monetization of new drug targets and intellectual property from data use partnerships focused on analysis of rich proprietary data sets. The target market for monetization will primarily be mid-size to large biopharmaceutical organizations seeking to build their new drug target pipeline. A secondary revenue channel is fee for service partnerships with biopharmaceutical companies and other organizations of all sizes that have challenges analyzing data throughout the drug development process. The Company provides the customer with an analysis of large complex data sets using the Company's proprietary Artificial Intelligence / Machine Learning platform. This platform is aimed at predicting targets of interest, patterns, relationships, anomalies, and molecular drivers of disease. The Company believes that there will be additional on-going work requested from partners; therefore, the service model utilizes a master services agreement with work or task orders issued for discrete analysis performed at the discovery, preclinical, or clinical stages of drug development. The Company receives a cash fee and, in some instances, the potential for rights to new intellectual property generated from the analysis. Once data analysis and the analysis report are complete, the Company delivers the analysis set to the customer and recognizes revenue at that point in time.

Significant Accounting Policies

There have been no new or material changes to the significant accounting policies discussed in the Company's audited financial statements and the notes thereto included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

Impact of Recently Issued Accounting Standards

The Company has evaluated issued Accounting Standards Updates ("ASUs") not yet adopted and believes the adoption of these standards will not have a material impact on its consolidated financial statements.

3. Convertible Notes

August 2021 Note

In August 2021, the Company entered into a convertible loan agreement with an unrelated party for a commitment of up to $195,000 with a 5% original issue discount and a 9% interest rate. The loan was repaid in its entirety in February 2023.

December 2021 Note

In December 2021, the Company entered into a loan agreement with an unrelated party with a principal amount of $25,000, a 10% original issue discount and a 6% interest rate. Concurrent with the closing of the Company's IPO, the note converted according to its terms into 6,939 shares of common stock. No gain or loss was recognized on the conversion.

Convertible Bridge Notes

In 2022, the Company received approximately $991,000 of proceeds from the issuance of Convertible Bridge Notes from several offerings. Concurrent with the closing of the Company's IPO in February 2023, all of the Convertible Bridge Notes converted according to their terms into 269,513 shares of common stock. No gain or loss was recognized on the conversions.

4. Convertible Notes – Related Party

SAFE Agreement

In July 2021, the Company entered into a Simple Agreement for Future Equity (SAFE) with a related party at a purchase price of $150,000. In February 2023, the SAFE terminated and converted into 32,967 shares of common stock according to its terms upon the closing of the Company's IPO. The conversion was considered a redemption for accounting purposes and consequently, the Company recognized a $63,626 loss on the conversion.

August 2021 Note

In August 2021, the Company entered into a convertible loan agreement with a related party in the amount of $99,900 In February 2023, the related party elected to convert the convertible loan into 21,747 shares of common stock according to its terms upon the closing of the Company's IPO. The conversion was considered a redemption for accounting purposes and consequently, the Company recognized a $29,333 loss on the conversion.

5. Notes Payable

In January 2023, the Company entered into a short-term note payable with a principal balance of $100,000, an original issue discount of 20% and a 9% interest rate. The note was repaid in its entirety in February 2023.

In February 2023, the Company entered into an agreement to finance a portion of the premium for its Directors and Officers Insurance. The agreement provided for financing of $697,534 of the premium, repayments in 10 equal monthly installments of $71,485 each through December 2023 and accrued interest at 6.5%. The financing was repaid during 2023.

In February 2024, the Company again entered into an agreement to finance a portion of the premium for its Directors and Officers Insurance. The agreement provides for financing of $561,885 of the premium, repayments in 10 equal monthly installments of $58,005 each through December 2024 and accrued interest at 6.99%.

6. Stockholder's Equity

Preferred Stock

The Company has 10,000,000 shares of preferred stock authorized at a par value of $0.00001 with 5,500,000 being designated as Series A Convertible Preferred Stock. Of the 5,500,000 authorized shares of Series A Convertible Preferred Stock, 73,449 were issued and outstanding as of June 30, 2024. Each share of Series A Convertible Preferred Stock is convertible at any time into 10 shares of the Company's common stock. The Series A Preferred Stock is the economic equivalent of the common stock but has no voting rights and is subject to a blocker which prohibits the conversion into common stock if it would result in the investor owning more than 4.99% of the Company's outstanding common stock at such time.

Common Stock

The Company has 100,000,000 shares of common stock authorized at a par value of $0.00001.

In February 2023, the Company completed its IPO for the sale of 1,297,318 units (each, a "Unit," collectively, the "Units") at a price of $6.50 per Unit for a total of approximately $8.4 million of gross proceeds. Each Unit consisted of one share of the Company's common stock, one tradeable warrant (each, a "Tradeable Warrant," collectively, the "Tradeable Warrants") to purchase one share of common stock at an exercise price of $7.80 per share, and one non-tradeable warrant (each, a "Non-tradeable Warrant," collectively, the "Non-tradeable Warrants"; together with the Tradeable Warrants, each, a "Warrant," collectively, the "Warrants") to purchase one share of the Company's common stock at an exercise price of $8.125.

In connection with the completion of its IPO, the Company issued an aggregate of 331,166 shares of common stock upon the conversion of certain outstanding convertible debt (see Note 3 and Note 4).

In connection with the IPO, in February 2023, the Company completed a 1-for-7 reverse split of its common stock. Stockholders' equity and all references to shares and per share amounts in the accompanying unaudited condensed consolidated financial statements have been retroactively adjusted to reflect the reverse stock split for all periods presented.

In February 2023, the Company issued 7,692 shares of common stock for consulting services and recognized $50,000 of compensation expense related to these shares.

In February 2024, the Company received approximately $6.5 million of gross proceeds from the sale of 1,247,092 shares of common stock, 478,429 pre-funded warrants and 1,725,521 warrants (collectively the "Units"). The Units were sold at a price of $3.782 and the sale was completed via an underwritten secondary public offering and includes the underwriter's exercise of their overallotment option. The warrants have an exercise price of $4.16 and expire five years from issuance. The pre-funded warrants have an exercise price of $0.001 and were all exercised in their entirety in the first quarter of 2024.

Dilutive securities are excluded from the diluted earnings per share calculation because their effect is anti-dilutive. As of June 30, 2024, 5,307,444 warrants and 830,925 options for common shares were excluded from the calculation of net loss per share. As of June 30, 2023, 3,796,147 warrants and 448,717 options for common shares were excluded from the calculation of net loss per share.

2022 Equity Incentive Plan

In November 2022, the Company's Board of Directors adopted, and its shareholders approved, the 2022 Equity Incentive Plan (the "Plan"). The Plan provides for the granting of equity-based awards to employees, directors, and consultants. The Plan provides for equity-based awards including incentive stock options, non-qualified stock options, stock appreciation rights, performance share awards, cash awards and other equity-based awards. Awards are limited to a maximum term of 10 years and any exercise prices shall not be less than 100% of the fair market value of one share of common stock on the grant date.

Stock Options

The following tables summarizes the stock option activity for the six months ended June 30, 2024:

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2023	527,717	$ 4.17	9.00	$ 112,141
Granted	313,000	3.86		
Exercised	-	-		
Forfeited / canceled	(9,792)	5.45		
Outstanding at June 30, 2024	830,925	4.04	8.89	-
Vested at June 30, 2024	405,102	4.03	8.46	-

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2022	69,217	$ 3.06	7.08	$ 117,669
Granted	379,500	4.53		
Exercised	-	-		
Forfeited / canceled	-	-		
Outstanding at June 30, 2023	448,717	4.30	9.35	174,563
Vested at June 30, 2023	177,985	3.91	8.72	77,706

The fair value of options granted during the six months ended June 30, 2024 and 2023 was estimated using the Black-Scholes option pricing model based on the assumptions in the table below:

	Six Months Ended June 30,	
	2024	**2023**
Expected dividend yield	0%	0%
Expected volatility	92% - 96%	87% - 88%
Risk-free interest rate	4.0% - 4.4%	3.4% - 3.9%
Expected life (in years)	5.25 - 6.0	5.0 - 6.0

- *Volatility* – The trading volatility was determined by calculating the volatility of the Company's peer group.
- *Expected life of options* – The expected life of options granted to employees was determined using the simplified method.
- *Risk-free interest rate* – This is the U.S. Treasury rate, having a term comparable to the expected life of the stock option.
- *Dividend yield* – The Company does not expect to pay a dividend in the foreseeable future.

The weighted-average grant-date fair value of options granted during the six months ended June 30, 2024 and 2023 was $2.94 and $3.26, respectively.

During the three and six months ended June 30, 2024, the Company recognized $191,772 and $524,791, respectively of compensation expense related to stock options. During the three and six months ended June 30, 2023, the Company recognized $253,816 and $359,054, respectively ofcompensation expense related to stock options.

As of June 30, 2024, the total unrecognized compensation expense related to unvested stock options was approximately $1,209,000, which the Company expects to recognize over a weighted-average period of approximately 1.8 years.

Warrants

The following table provides details over the Company's outstanding warrants as of June 30, 2024:

Exercise Price	**Expiration**	**Number of Warrants**
$0.0007	2030	274,286
$2.10 - $2.66	2026 - 2032	446,160
$3.36 - $4.27	2028 - 2029	1,933,226
$6.51 - $7.80	2026 - 2032	1,484,829
$8.125	2027 - 2028	1,443,227
		5,581,728

Warrants Issued in Conjunction with Transactions

During the year ended December 31, 2023, the Company issued the following warrants as part of the Company's February 2023 IPO:

- 276,452 contingent warrants to certain debt holders with an exercise price of $4.27 and an expiration date 5 years from issuance. As of June 30, 2024, 204,033 warrants have been exercised and 72,419 remain outstanding. As a result of the February 2024 transaction, the exercise price of the warrants was reduced to $3.782 pursuant to the anti-dilution provision contained in the warrants. The effect of the change in price was recognized as a deemed dividend of $5,794 which increases net loss available to common stockholders for the six months ended June 30, 2024.
- 18,000 contingent warrants as fees to the Company's underwriters with an exercise price of $8.125 and an expiration date 4 years from issuance. As of June 30, 2024, none of these warrants have been exercised. As a result of the February 2024 transaction, the exercise price of the warrants was reduced to $3.782 pursuant to the anti-dilution provision contained in the warrants. The effect of the change in price was recognized as a deemed dividend of $10,980 which increases net loss available to common stockholders for the six months ended June 30, 2024.
- 1,297,318 tradable warrants with an exercise price of $7.80 and an expiration date 5 years from issuance. Through June 30, 2024, 100 warrants have been exercised.

- 1,297,318 non-tradable warrants with an exercise price of $8.125 and an expiration date 5 years from issuance. As of June 30, 2024, none of these warrants have been exercised.
- 153,409 tradeable warrants to our underwriters pursuant to the overallotment options with an exercise price of $7.80 and an expiration date 5 years from issuance. As of June 30, 2024, none of these warrants have been exercised.
- 153,409 non-tradeable warrants to our underwriters pursuant to the overallotment options with an exercise price of $8.125 and an expiration date 5 years from issuance. As of June 30, 2024, none of these warrants have been exercised.

During the six months ended June 30, 2024, the Company issued the following warrants as part of the Company's secondary public offering:

- 1,507,139 warrants to purchase shares of the Company's common stock at an exercise price of $4.16 per share and an expiration date 5 years from issuance. In addition, the Company issued an additional 218,382 warrants with an exercise price of $4.16 and an expiration date 5 years from issuance pursuant to the underwriters' overallotment option. As of June 30, 2024, 16,000 of these warrants have been exercised and 1,709,521 remain outstanding.
- 478,429 pre-funded warrants with an exercise price of $0.001. As of June 30, 2024, all of these pre-funded warrants have been exercised.
- 90,428 warrants with an exercise price of $4.16 per share and an expiration date 5 years from issuance to our underwriters. The warrants were valued at approximately $263,000 and as of June 30, 2024, none of these warrants have been exercised.

Warrants Issued as Consideration for Services

The following table summarizes the activity for warrants issued as consideration for services for the six months ended June 30, 2024 and the year ended December 31, 2023:

	Number of Warrants	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2022	678,176	$ 1.57	7.6	$ 2,131,123
Granted	-	-		
Exercised	-	-		
Forfeited / canceled	-	-		
Outstanding at December 31, 2023	678,176	1.57	6.6	1,209,136
Granted	-	-		
Exercised	(14,285)	2.66		
Forfeited / canceled	-	-		
Outstanding at June 30, 2024	663,891	1.55	6.1	474,323
Vested at June 30, 2024	663,891	1.55	6.1	474,323

During the three and six months ended June 30, 2024, the Company recognized $610 and $3,007, respectively, of compensation expense related to certain warrants. During the three and six months ended June 30, 2023, the Company recognized $8,451 and $30,663, respectively, of compensation expense related to certain warrants.

As of June 30, 2024, there was no unrecognized compensation expense related to unvested warrants.

7. Income Taxes

The Company has not recorded any tax provision or benefit for the six months ended June 30, 2024 and 2023. The Company has provided a valuation allowance for the full amount of its net deferred tax assets since realization of any future benefits from deductible temporary differences, net operating loss carryforwards, and research and development credits are not more-likely-than-not to be realized at June 30, 2024 and December 31, 2023.

8. Material Agreements

JHU-APL Technology License

In February 2018, the Company entered into an exclusive, world-wide, royalty-bearing license from JHU-APL. The license covers three (3) issued patents, one (1) new provisional patent application, non-patent rights to proprietary libraries of algorithms and other trade secrets, as well as modifications and improvements. In October 2021, the Company executed an amendment to the original license for improvements and new advanced analytics capabilities. In consideration of the rights granted to the Company under the License Agreement, JHU received a warrant equal to five percent (5%) of the then fully diluted equity base of the Company, which was diluted following the closing of the IPO. Under the terms of the License Agreement, JHU will be entitled to an eight percent (8%) royalty on net sales for the services provided by the Company as well as fifty percent (50%) of all sublicense revenues received by the Company on services and sublicenses in which the JHU licensed technology was utilized. In addition, the Company is required to pay JHU an annual maintenance fee of $1,500. Minimum annual royalty payments are $20,000 for 2022, $80,000 for 2023, and $300,000 per year for 2024 and beyond. If cumulative annual royalty payments do not reach these levels, the amount due to JHU to reach the annual minimum is due by January 1st of the following year. Failure to make annual royalty payments is considered a material breach under the agreement and upon notice from JHU of a material breach, the Company shall have 60 days to cure the material breach. In July 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from JHU-APL for the additional technology developed to enhance the bfLEAP™ platform. The new license provides additional intellectual property rights including patents, copyrights, and knowhow to be utilized under the Company's bfLEAP™ analytical AI/ML platform. This license supersedes the previous license. In consideration of the new license, the Company issued 39,879 shares of common stock to JHU. Under the terms of the new License Agreement, JHU will be entitled to eight percent (8%) of net sales for the services provided by the Company to other parties and three percent (3%) for internally developed drug projects in which the JHU license was utilized. The new license also contains tiered sub licensing fees that start at 50% and reduce to 25% based on revenues. In addition, under the new license agreement, the minimum annual royalty payments are $30,000 for 2022, $80,000 for 2023, and $300,000 per year for 2024 and beyond.

In May 2023, the Company and JHU-APL entered into Amendment number 1 of the July 2022 License Agreement whereby the Company gained access to certain improvements including additional patents and knowhow in exchange for a series of payments totaling $275,000. The first of these payments for $75,000 was paid in July 2023 and the remaining payments of $75,000, $75,000, and $50,000 are due in years 2025, 2026, and 2027, respectively. The amendment also reduced the 2023 minimum annual royalty payment to $60,000, all other financial terms remain the same. As of June 30, 2024, we have accrued $150,000 of the 2024 minimum annual royalty payments.

George Washington University - Beta2-spectrin siRNA License

In January 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from George Washington University (GWU) for rights to use siRNA targeting Beta2-spectrin in the treatment of human diseases, including hepatocellular carcinoma (HCC). The license covers methods claimed in three US and worldwide patent applications, and also includes use of this approach for treatment of obesity, non-alcoholic fatty liver disease, and non-alcoholic steatohepatitis.

In consideration of the rights granted to the Company under the License Agreement, the Company paid GWU a $20,000 License Initiation Fee. Under the terms of the License Agreement, GWU will be entitled to a three percent (3%) royalty on net sales subject to quarterly minimums once the first sale has occurred subsequent to regulatory approval, as well sublicense or assignment fees in the event the Company sublicenses or assigns their rights to use the technology. The Company will also reimburse GWU for previously incurred and ongoing patent costs. The Sublicense and Assignment fee amounts decline as the Company advances the clinical development of the licensed technology. The license agreement also contains milestone payments for clinical development through the approval of an NDA and commercialization. As of June 30, 2024, there has been no accrual for royalties since we have not begun to generate applicable revenue. The Company assessed whether the license should be capitalized and determined that the licensed program is in the early stage and therefore may not be recoverable; the Company expensed the license fee and will expense development costs until commercial viability is likely.

Johns Hopkins University – Mebendazole License

In February 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from Johns Hopkins University (JHU) for the use of an improved formulation of Mebendazole for the treatment of any human cancer or neoplastic disease. This formulation shows potent activity in animal models with different types of cancer and has been evaluated in a Phase I clinical trial in patients with high-grade glioma (NCT01729260). The trial, an open-label dose-escalation study, assessed the safety and efficacy of the improved formulation with adjuvant temozolomide in 24 patients with newly diagnosed gliomas. Investigators observed no dose-limiting toxicity in patients receiving all but the highest tested dose (200mg/kg/day). Four of the 15 patients receiving the maximum tested dose of 200mg/kg/day experienced dose-limiting toxicity, all of which were reversed by decreasing or eliminating the dose given. There were no serious adverse events attributed to Mebendazole at any dose during the trial. 41.7% of patients who received Mebendazole were alive at two years after enrollment, and 25% were alive at four years (Gallia et al., 2021).

The license covers six (6) issued patents and one (1) pending application. In consideration of the rights granted to the Company under the License Agreement, JHU will receive a staggered Upfront License Fee of $250,000. The initial payment for $50,000 was paid and the remaining balance of $200,000 was paid after the Company completed its IPO. The Company will also reimburse JHU for previously incurred and ongoing patent costs. Under the terms of the License Agreement, JHU will be entitled to three and one-half percent (3.5%) royalty on net sales by the Company in which the JHU license was utilized. In addition, the Company is required to pay JHU minimum annual royalty payments of $5,000 for 2022, $10,000 for 2023, $20,000 for 2024, $30,000 for 2025, and $50,000 for 2026 and each year after until the first commercial sale, after which, the annual minimum royalty shall be $250,000. The license agreement also contains milestone payments for clinical development steps through the approval of an NDA and commercialization. As of June 30, 2024 and December 31, 2023, the balance of accrued expense related to this license agreement was $10,000 and $10,000, respectively. The Company assessed whether the license should be capitalized and determined that the licensed program is in the early stage and therefore may not be recoverable; the Company expensed the license fee and will expense development costs until commercial viability is likely.

Johns Hopkins University – Prodrug License

In October 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from JHU and the Institute of Organic Chemistry and Biochemistry (IOCB) of the Czech Academy of Sciences for rights to commercialize N-substituted prodrugs of Mebendazole that demonstrate improved solubility and bioavailability. The license covers prodrug compositions and use for treating disease as claimed in multiple US and worldwide patent applications. In consideration for the rights granted to the Company under the License Agreement, JHU and IOCB will receive a staggered upfront license fee of $100,000. The Company will also reimburse JHU and IOCB for previously incurred patent costs. Under the terms of the License Agreement, JHU and IOCB will be entitled to four percent (4.0%) royalty on net sales by the Company in which the JHU and IOCB license was utilized. In addition, the Company is required to pay JHU and IOCB minimum annual royalty payments of $5,000 for 2026, $10,000 for 2027, $20,000 for 2028, $30,000 for 2029, and $50,000 for 2030 and each year after until the first commercial sale, after which, the annual minimum royalty shall be $150,000. The license agreement also contains milestone payments for patent grants, clinical development steps through the approval of an NDA and commercialization. No expenses have been accrued as of any of the periods presented. The Company assessed whether the license should be capitalized and determined that the licensed program is in the early stage and therefore may not be recoverable; the Company expensed the license fee and will expense development costs until commercial viability is likely.

Item 2. Management's Discussion and Analysis of Financial Conditions and Results of Operations

References in this Management's Discussion and Analysis of Financial Condition and Results of Operations to "us", "we", "our" and similar terms refer to the Company. The following discussion and analysis of our financial condition and results of operations should be read in conjunction with (1) our consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q, and (2) our consolidated financial statements, related notes and management's discussion and analysis of financial condition and results of operations in our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the Securities and Exchange Commission on March 29, 2024. This Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements are often identified by the use of words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "project," "will," "would" or the negative or plural of these words or similar expressions or variations. Such forward-looking statements are subject to a number of risks, uncertainties, assumptions, and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified herein. You should not rely upon forward-looking statements as predictions of future events. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Overview

Bullfrog AI Holdings, Inc. was incorporated in the State of Nevada in February 2020. Bullfrog AI Holdings, Inc. is the parent company of Bullfrog AI, Inc. and Bullfrog AI Management, LLC, which were incorporated in Delaware and Maryland, in 2017 and 2021, respectively. Operations are currently conducted through Bullfrog AI Holdings, Inc., which began operations on February 6, 2020. We are a company focused specifically on advanced Artificial Intelligence / Machine Learning (AI/ML) analysis of complex data in the advancement of medicine. Our founding AI/ML platform (trade name: bfLEAP™) was created from technology originally developed at The Johns Hopkins University Applied Physics Laboratory (JHU-APL). Subsequently, we have developed new tools and capabilities composed of an ensemble of machine learning and artificial intelligence models.

In February 2018, Bullfrog AI Holdings secured the original exclusive, worldwide, royalty-bearing license from JHU-APL. The license covers three (3) issued patents, one (1) new provisional patent application, non-patent rights to proprietary libraries of algorithms and other trade secrets including modifications and improvements. Our objective is to utilize our AI/ML platform with a precision medicine approach toward drug development with biopharmaceutical collaborators, as well as for our own internal clinical development programs. We believe the bfLEAP™ platform is ideally suited for evaluating pre-clinical and clinical trial data generated in translational research and clinical trial settings that lead to faster, less expensive drug approvals.

Our aim is to improve the odds of success in each stage of developing medicine, ranging from early pre-clinical through late-stage clinical development. Our ultimate objective is to utilize bfLEAP™ to enable the success of ongoing clinical trials or rescue late-stage failed drugs (i.e., Phase 2 or Phase 3 clinical trial failures) for in-house development and divestiture; although, we also consider entering collaborations for earlier stage drugs.

In September 2020 and October 2021, the Company executed amendments to the original February 2018 license which represents improvements and new advanced analytics capabilities. In consideration of the rights granted to the Company under the original License Agreement, the Company granted JHU 178,571 warrants exercisable to purchase shares of common stock at $2.10 per share.

In July 2022, the Company entered into an exclusive, worldwide, royalty-bearing license from JHU-APL that provides additional intellectual property rights including patents, copyrights, and knowhow to be utilized under the Company's bfLEAP™ analytical AI/ML platform. In consideration of the new license, the Company issued to JHU-APL 39,879 shares of common stock. Under the terms of the new License Agreement, JHU will be entitled to eight (8%) percent of net sales for the services provided by the Company to other parties and three (3%) percent for internally developed drug projects in which the JHU license was utilized. The new license also contains tiered sub licensing fees that start at fifty (50%) percent and reduce to twenty-five (25%) percent based on revenues. The Company and JHU-APL entered into Amendment number 1 of the July 2022 License Agreement whereby the Company gained access to certain improvements including additional patents and knowhow in exchange for a series of payments totaling $275,000. The first of these payments for $75,000 was paid in July 2023 and the remaining payments of $75,000, $75,000 and $50,000 are due in years 2025, 2026 and 2027, respectively. The amendment also reduced the 2023 minimum annual royalty payment to $60,000, all other financial terms remain the same. As a result of this Amendment, the minimum annual payments were $30,000 for 2022 and $60,000 for 2023, and the minimum annual payments will be $300,000 for 2024 and beyond, all of which are creditable by royalties. As of June 30, 2024, we have accrued $150,000 of the 2024 minimum annual royalty payments.

We intend to continue to evolve and improve bfLEAP™, either in-house or with development partners like JHU-APL. We plan to leverage our proprietary AI/ML platform, developed over several years at one of the top innovation institutions in the world, which has already been successfully applied in multiple sectors.

We have staffed our business using funds from our initial public offering and have entered into partnerships and relationships and recently completed our first commercial service contract with a leading rare disease non-profit organization for AI/ML analysis of late-stage clinical data. We have also acquired the rights to a series of preclinical and early clinical drug assets from universities, as well as a strategic collaboration with a world-renowned research institution to create a HSV1 viral therapeutic platform to engineer immunotherapies for a variety of diseases. We have signed exclusive worldwide License Agreements with JHU for a cancer drug that targets glioblastoma (brain cancer), pancreatic cancer, and others. We have also signed an exclusive worldwide license from George Washington University for another cancer drug that targets hepatocellular carcinoma (liver cancer) and other liver diseases. In addition, we have signed three-year strategic data and commercialization agreements with the Lieber Institute for Brain Development ("LIBD") whom we believe has a repository of the largest collection of postmortem brains in the world including molecular, clinical, and other data. The objective of this partnership is for the Company to analyze these rich data sets using its proprietary AI/ML tools and models and then go to market with the discoveries with the ultimate goal of securing revenue generating strategic partnership deals with biopharmaceutical companies. We intend to secure the rights to other proprietary data sets and repeat this strategy. Additionally, we intend to gain access to later-stage clinical assets through partnerships or the acquisition of rights to failed therapeutic candidates for drug rescue. In certain circumstances, we intend to conduct late-stage clinical trials in an effort to rescue therapeutic assets that previously failed. In these cases, there will be a requirement for drug supply and regulatory services to conduct clinical trials. The success of our clinical development programs will require finding partners to support the clinical development, adequate availability of raw materials and/or drug product for our R&D and clinical trials, and, in some cases, may also require establishment of third-party arrangements to obtain finished drug product that is manufactured appropriately under Good Manufacturing Practices, and packaged for clinical use or sale. Since we are a company focused on using our AI technology to advance medicines, any clinical development programs will also require, in all cases, partners and the establishment of third-party relationships for execution and completion of clinical trials.

Since completing our IPO in February 2023, aided by the receipt of the IPO proceeds in addition to the proceeds from our February 2024 Offering, we have implemented several initiatives: Investor relations and marketing to promote and raise awareness of the company in the financial and business sectors, research and development, collaboration with the J Craig Venter Institute and initiated preclinical studies with our in-licensed drug programs. The Company is actively engaged in developing and pursuing new intellectual property as it strives to continuously evolve its AI/ML platform.

Internally, the Company has added incremental staff to accelerate execution, and the development of processes and custom scripts for use in performing new drug target discovery and analytical services for customers, while also launching initiatives targeting large public health data sources and seeking access to proprietary health data sources, such as our agreement with the Lieber Institute for Brain Development. We also transitioned our accounting and financial reporting systems and processes to enhance our internal control environment as a public company. Capital from the IPO was also used to retire two notes that were sold to fund the Company through the IPO that did not convert into common stock as well as other debts accrued over time to our staff, employees and consultants as well as obligations related to the acquisition of our licensed drug programs.

The Company has had negative cash flows from operations and operated at a net loss since inception. In the first quarter of 2023, we completed our initial public offering ("IPO"). In the first quarter of 2024, we received net proceeds of approximately $5.7 million from an underwritten secondary public offering of common stock and warrants. As of June 30, 2024, the Company has a cash balance of approximately $5.6 million. In the absence of significant revenues in 2024, the Company believes that its capital resources are sufficient to fund planned operations for approximately 9 months from the date of this filing.

Accordingly, we will require additional capital to continue to execute our strategy. We anticipate raising this additional capital through various avenues including sales of equity securities, debt transactions, licensing agreements and collaborative arrangements. Although management believes that such funding sources will be available, there can be no assurance that any such arrangements will be consummated to provide sufficient capital when needed to allow us to continue our operations, or if available, on terms acceptable to us. If we do not raise sufficient funds in a timely manner, among other things, we may be forced to delay, scale back or eliminate some or all our research and product development programs and/or our capital expenditures or to enter into arrangements on unfavorable terms. We currently do not have commitments for future funding from any source.

Our Strategy

The Company has a unique strategy designed to reduce risk and increase the frequency of cash flow. The first part of the strategy is to generate revenues through strategic relationships with biopharma companies. These relationships will be structured as a combination of fees and intellectual property based on the specific scope of the engagement. The objective of these engagements will be to uncover valuable insights to reduce the risk and/or increase the speed of the drug development process which can be achieved through manual or automated integration into the client's workflow or analysis of discrete data sets.

In the future, the second part of our strategy involves acquiring the rights to drugs at various stages of development, using our proprietary AI/ML technology to advance the development and make discoveries, with the objective of creating near term value and then exiting and monetizing as quickly as possible, preferably within approximately 30 months.

Critical Accounting Policies and Estimates

Our financial statements are prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, as well as related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates. There have been no material changes to our critical accounting policies and estimates as those described in our Form 10-K for the fiscal year ended December 31, 2023.

Financial Operations Overview

Revenue

While we generated our first revenues in late 2022 from our services provided to a pharmaceutical customer, we completed our first commercial service contract and recognized revenue in the amount of $65,000 in the third quarter of 2023. We did not generate any revenue during the six months ended June 30, 2024.

Research and Development Costs and Expenses

Research and development expenses consist primarily of costs related to the acquisition of licensed technology, annual minimum royalty fees payable until commercialization, fees paid to external service providers and internal costs for personnel working on research and development activities, including work on our proprietary platform which utilizes bfLEAP™ and an ensemble of AI/ML tools and models.

Research and development costs are expensed as incurred. Estimates are used in determining the expense liability of certain costs where services have been performed but not yet invoiced.

We anticipate our research and development costs continuing to increase as we execute on our business plan and begin conducting preclinical research and development activities directed at securing development partners and filing an Investigational New Drug application for our licensed drug development programs described in this filing, as well as under strategic partnerships and for other drug development programs we may pursue. Further, we anticipate our research and development costs will increase as we add additional staff and perform analytical work aimed at target discovery on proprietary data sets through our partnering efforts as well as with prospective customers.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel related costs, including non-cash stock-based compensation, as well as accounting and consulting services, insurance expense, and legal fees relating to corporate matters. We anticipate that our general and administrative expenses will increase in the future to support our target discovery efforts, service offerings, and clinical and pre-clinical research and development activities associated with strategic partnering and collaborations.

Results of Operations - Comparison of Three Months Ended June 30, 2024 and 2023

	June 30,		Net Change
	2024	2023	
Operating expenses:			
Research and development	$ 513,699	$ 273,671	$ 240,028
General and administrative	1,168,264	1,263,299	(95,035)
Total operating expenses	$ 1,681,963	$ 1,536,970	$ 144,993

Research and Development

Our research and development expenses for the three months ended June 30, 2024 increased, compared to the same period ended June 30, 2023, primarily due to increased personnel costs due to the hiring of several additional technical staff as well as our Chief Science Officer. In addition, in the first quarter of 2024, we engaged disease experts as area consultants, we expanded our target discovery efforts, and we also initiated a preclinical obesity study related to siRNA program.

General and Administrative

Our general and administrative expenses for the three months ended June 30, 2024 increased, compared to the same period ended June 30, 2023, primarily due to increased personnel costs due to the hiring of several additional staff, as well as associated increases in equity compensation costs and recruiting fees as we work to expand our technical staff and capabilities.

Other Income (Expense), Net

Interest expense decreased $2,942 for the three months ended June 30, 2024, compared to the same period ended June 30, 2023, due to the majority of our debt converting or being paid off in the first quarter of 2023. Interest income increased by $10,803 for the three months ended June 30, 2024, compared to the same period ended June 30, 2023, due to interest earned on cash held in an overnight sweep account.

Results of Operations - Comparison of Six Months Ended June 30, 2024 and 2023

	June 30,		Net Change
	2024	2023	
Operating expenses:			
Research and development	$ 1,065,825	$ 643,604	$ 422,221
General and administrative	2,581,856	2,084,011	497,845
Total operating expenses	$ 3,647,681	$ 2,727,615	$ 920,066

Research and Development

Our research and development expenses for the six months ended June 30, 2024 increased, compared to the same period ended June 30, 2023, primarily due to increased personnel costs due to the hiring of several additional technical staff as well as our Chief Science Officer. In addition, in the first quarter of 2024, we engaged disease experts as area consultants, we expanded our target discovery efforts, and we also initiated a preclinical obesity study related to siRNA program.

General and Administrative

Our general and administrative expenses for the six months ended June 30, 2024 increased, compared to the same period ended June 30, 2023, primarily due to increased personnel costs due to the hiring of several additional staff, as well as associated increases in equity compensation costs and recruiting fees as we work to expand our technical staff and capabilities.

Other Income (Expense), Net

Interest expense decreased $59,950 for the six months ended June 30, 2024, compared to the same period ended June 30, 2023, due to the majority of our debt converting or being paid off in the first quarter of 2023. Interest income increased by $57,662 for the six months ended June 30, 2024, compared to the same period ended June 30, 2023, due to interest earned on cash held in an overnight sweep account.

Results of Operations

Liquidity and Capital Resources

In 2022, the Company received net proceeds from the sale of Convertible Bridge Notes of approximately $1,016,000 and repaid unsecured promissory notes sold in 2021 in the amount of $49,000. The Company sold one additional promissory note and received net proceeds of $100,000 in January 2023.

Through June 30, 2024, the Company has an accumulated deficit of approximately $13,287,000 and has funded its operations through the sale of common stock and debt. We anticipate that our expenses will increase in the future to support our target discovery activities, service offerings, clinical and pre-clinical research and development activities associated with strategic partnering and collaborations, as well as acquired product candidates and the increased costs of operating as a public company.

The Company's current entities include Bullfrog AI, Inc. and Bullfrog Management, LLC, which are wholly owned subsidiaries of Bullfrog AI Holdings, Inc., which is a holding company that depends upon the sale of its securities and cash generated through its subsidiaries to fund consolidated operations.

On February 16, 2023, the Company completed its IPO of 1,297,318 units (each, a "Unit," collectively, the "Units") at a price of $6.50 per unit for a total of approximately $8.4 million of gross proceeds to the Company. Each Unit consists of one share of the Company's common stock, one tradeable warrant (each, a "Tradeable Warrant," collectively, the "Tradeable Warrants") to purchase one share of common stock at an exercise price of $7.80 per share, and one non-tradeable warrant (each, a "Non-tradeable Warrant," collectively, the "Non-tradeable Warrants"; together with the Tradeable Warrants, each, a "Warrant," collectively, the "Warrants") to purchase one share of the Company's common stock at an exercise price of $8.125. In connection with the IPO, the Company also completed a 1-for-7 reverse stock split of our common stock.

In connection with the IPO, a SAFE and convertible loan agreement held by a related party converted into 55,787 shares of post reverse split common stock. Additionally, all outstanding convertible bridge notes and accrued interest through November 30, 2022 were converted into 276,289 shares of common stock and 276,289 warrants to purchase common stock and were issued to the Convertible Bridge Note holders at conversion. The convertible bridge note conversions and the warrant exercise pricing were determined using a $25 million company valuation immediately before the IPO.

Between April 5 and April 13, 2023, the holders of warrants exercised 436,533 warrants for common stock at various exercise prices and the Company received proceeds of approximately $1,495,000.

In the first quarter of 2024, we completed an underwritten secondary offering of common stock and warrants generating approximately $5.7 million of net proceeds.

In the first quarter of 2024, holders exercised warrants (including prefunded warrants from the secondary offering) to purchase 508,814 shares of common stock generating proceeds of approximately $106,000.

In the absence of significant revenues in 2024, management believes the Company's capital resources are sufficient to fund planned operations for approximately 9 months from the date of this filing. Accordingly, we will seek additional capital to continue to execute our strategy as discussed above.

Consolidated Cash Flow Data

	Six Months Ended June 30,		
	2024	**2023**	**Change**
Net cash (used in) provided by			
Operating activities	$ (3,132,149)	$ (3,589,511)	$ 457,362
Investing activities	-	-	-
Financing activities	6,121,507	8,991,410	(2,869,903)
Net increase in cash and cash equivalents	$ 2,989,358	$ 5,401,899	$ (2,412,541)

Cash Flows Used in Operating Activities

Net cash used in operating activities for the six months ended June 30, 2024 decreased compared to the same period ended June 30, 2023 primarily due to paying down accrued expenses for technology access, consultants, and compensation in 2023, partially offset by increased operating costs in 2024.

Cash Flows Used in Investing Activities

There was no cash used in investing activities during the six months ended June 30, 2024 or 2023.

Cash Flows Provided by Financing Activities

Net cash provided by financing activities for the six months ended June 30, 2024 decreased compared to the same period ended June 30, 2023 primarily due to proceeds from our Initial Public Offering in February 2023 exceeding the proceeds from our secondary offering in February 2024.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

As a smaller reporting company, this disclosure is not required.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We are required to maintain "disclosure controls and procedures" as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934. In designing and evaluating our disclosure controls and procedures, our management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of disclosure controls and procedures are met. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. We conducted an evaluation of the effectiveness of our disclosure controls and procedures as of June 30, 2024. Based on this evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were not effective as of the end of the reporting period covered in this Quarterly Report on Form 10-Q, as a result of the material weaknesses in our internal control over financial reporting described below. Notwithstanding the identified material weaknesses, our management has concluded that the unaudited condensed consolidated financial statements in this quarterly filing on Form 10-Q, and the audited consolidated financial statements contained in our Form 10-K for the year ended December 31, 2023, fairly present, in all material respects, our financial position, results of operations and cash flows as of and for the periods presented in conformity with GAAP.

Changes in Internal Control Over Financial Reporting

Management has identified material weaknesses in its internal controls over financial reporting at December 31, 2023. Specifically, Management noted the Company did not properly document, implement or operate a system of effective internal controls over financial reporting.

Ongoing Remediation Efforts

Management is in the process of implementing improvements to its internal controls over financial reporting. Namely the Company has and is continuing to:

- transitioned its day-to-day accounting processes to a new external firm including automating its vendor payments;
- initiated the transfer of the overall accounting process to an enterprise type accounting platform;
- periodically review the design and effectiveness of our controls including the creation of an annual risk assessment and ongoing monitoring activities; and
- evaluate all internal and external resources to ensure they are appropriate for the level and complexity of our current operations. This includes the recent hiring of a Corporate Controller.

While we believe that these efforts will improve our internal control over financial reporting, the implementation of these measures is ongoing and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period of financial reporting cycles. We will continue to monitor and evaluate the effectiveness of our internal control over financial reporting on an ongoing basis and are committed to taking further action and implementing additional enhancements or improvements, as necessary and as funds allow. We cannot assure you that the measures we have taken to date, or that we may take in the future, will be sufficient to remediate the material weaknesses we have identified or avoid potential future material weaknesses. Accordingly, there could continue to be a reasonable possibility that a material misstatement of our financial statements would not be prevented or detected on a timely basis.

PART II. OTHER INFORMATION

Item 1 Legal Proceedings.

To our best knowledge, we are currently not a party to any legal proceedings that, individually or in the aggregate, are deemed to be material to our financial condition or results of operations.

Item 1A Risk Factors.

Smaller reporting companies are not required to provide the information required by this item.

Item 2 Unregistered Sales of Equity Securities and Use of Proceeds.

There were no issuances of unregistered sales of equity securities during the six months ended June 30, 2024.

Use of Proceeds.

We continue to use the proceeds from our IPO and secondary offering for our operations.

Item 3 Defaults Upon Senior Securities.

None.

Item 4 Mine Safety Disclosures.

Not applicable.

Item 5 Other Information.

(c) Insider Trading Arrangements

Trading Plans

On June 6, 2023, Vininder Singh, the Chief Executive Officer and Director of the Company, entered into a 10b5-1 sales plan (the "10b-5 Sales Plan") intended to satisfy the affirmative defense of Rule 10b5-1(c) under the Exchange Act. The 10b5 Sales Plan provides for the sale of up to 1,000,000 shares of common stock and will remain in effect until the earlier of (1) September 30, 2024; or (2) the date on which an aggregate of 1,000,000 shares of common stock have been sold under the 10b5 Sales Plan. Pursuant to the 10b5 Sales Plan, 50,000 shares were sold under the plan in the second quarter of 2024, 100,000 shares were sold under the plan in the first quarter of 2024 and 50,000 shares were sold under the plan in September 2023. In May 2024, the 10b-5 Sales Plan was extended until August 31, 2025, no other adjustments were made to the plan.

No other directors or executive officers of the Company adopted, modified or terminated any contract, instruction or written plan for the purchase or sale of the Company's securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or any non-Rule 10b5 trading arrangement, (as defined in Item 408(c) of Regulation S-K) during the quarterly period covered by this report.

Item 6. EXHIBITS

Exhibit No.	Description
31.1 *	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a).
31.2 *	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a).
32.1 *	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2 *	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS *	Inline XBRL Instance Document.
101.SCH *	Inline XBRL Taxonomy Extension Schema Document.
101.CAL *	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF *	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB *	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE *	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, formatted in Inline XBRL (included in Exhibit 101).

* Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Bullfrog AI Holdings, Inc.

Date: August 7, 2024	By: */s/ Vininder Singh*
	Vininder Singh
	Chief Executive Officer
Date: August 7, 2024	By: */s/ Dane Saglio*
	Dane Saglio
	Chief Financial Officer

EXHIBIT 31.1

SECTION 302
CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Vininder Singh, certify that:

(1) I have reviewed this Quarterly Report on Form 10-Q of Bullfrog AI Holdings, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

August 7, 2024

By: */s/ Vininder Singh*
Vininder Singh
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

SECTION 302
CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Dane Saglio, certify that:

(1) I have reviewed this Quarterly Report on Form 10-Q of Bullfrog AI Holdings, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

August 7, 2024

By: */s/ Dane Saglio*
Dane Saglio
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Vininder Singh, hereby certify pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and 18 U.S.C. Section 1350, that the Quarterly Report on Form 10-Q of Bullfrog AI Holdings, Inc., (the "Company") for the quarterly period ended June 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: */s/ Vininder Singh*
Vininder Singh
Chief Executive Officer
(Principal Executive Officer)

August 7, 2024

The certification set forth above is being furnished as an Exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and is not being filed as part of the Report or as a separate disclosure document of Bullfrog AI Holdings, Inc. or the certifying officers.

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Dane Saglio, hereby certify pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and 18 U.S.C. Section 1350, that the Quarterly Report on Form 10-Q of Bullfrog AI Holdings, Inc. (the "Company") for the quarterly period ended June 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: */s/ Dane Saglio*
Dane Saglio
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

August 7, 2024

The certification set forth above is being furnished as an Exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and is not being filed as part of the Report or as a separate disclosure document of Bullfrog AI Holdings, Inc. or the certifying officers.