# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## **FORM 10-K**

(Mark One)

ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended: December 31, 2022

D TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from [ ] to [

1

Commission file number 001-41600

## <u>BULLFROG AI HOLDINGS, INC.</u>

(Name of small business issuer in its charter)

Nevada84-4786155(State or other jurisdiction of<br/>incorporation or organization)(IRS Employer<br/>Identification Number)

325 Ellington Blvd., Unit 317 Gaithersburg, MD 20878

(Address of Principal Executive Offices)

Issuer's telephone number: (240) 658-6710

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.00001 per share	BFRG	The Nasdaq Stock Market LLC (The Nasdaq Capital Market)
Tradable Warrants	BFRGW	The Nasdaq Stock Market LLC (The Nasdaq Capital Market)

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

None

Indicate by check mark if registrant is a well-known seasoned issuer, as defined under Rule 405 of the Securities Act. Yes 🗆 No 🗵

Indicate by check mark if registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗆 No 🖂

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 during the preceding 12 months (or for such shorter period that the issuer was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  $\square$  No  $\boxtimes$ 

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  $\boxtimes$  No  $\square$ 

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	$\boxtimes$	Smaller reporting company	$\boxtimes$
		Emerging growth company	$\boxtimes$

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.  $\Box$ 

Indicate by check mark whether the registrant has filed a report to its management's assessment of the effectiveness of its internal control over financial reporting under section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.  $\Box$ 

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.  $\Box$ 

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to 240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  $\square$  No  $\boxtimes$ 

The registrant was not a public company as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, and therefore it cannot calculate the aggregate market value of its voting and non-voting common equity held by non-affiliates at such date. The registrant's Common Stock began trading on the Nasdaq Capital Market on February 14, 2023.

As of April 14, 2023, there were 6,086,952 shares of the registrant's common stock, par value \$0.00001 per share, issued and outstanding.

Documents incorporated by reference: None.

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In this report, unless the context indicates otherwise, the terms "Company," "we," "us," "our" and similar words refer to Bullfrog AI Holdings, Inc. ("Bullfrog"), a Nevada corporation.

#### SPECIAL NOTE REGARDING 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 aware 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 property development, digital transformation technology and biohealth 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 I

#### **ITEM 1. BUSINESS**

#### **Our Corporate History and Background**

BullFrog AI Holdings, Inc. was incorporated in the State of Nevada on February 18, 2020. Our principal business address is 325 Ellington Blvd, Unit 317, Gaithersburg, MD 20878. All of our operations are currently conducted through BullFrog AI Holdings, Inc. BullFrog AI, Inc., a wholly owned subsidiary acquired through a share exchange, has the sole purpose of housing and protecting all of the organization's intellectual property. BullFrog AI Management, LLC is a wholly owned subsidiary that handles all HR and payroll activities.

## Acquisition of BullFrog AI

In March 2020, BullFrog AI, Inc. received an investment from TEDCO - the Technology Development Corporation of Maryland, a State of Maryland Investment Fund – pursuant to the issuance of a \$200,000 convertible note with an 18-month term, 6% annual interest rate, and a 20% discount. In June 2020, BullFrog AI Holdings, Inc. acquired BullFrog AI, Inc. pursuant to an exchange agreement under which each share of Bull Frog AI, Inc. common stock was exchanged for a share of common stock of BullFrog AI Holdings, Inc.. Immediately prior to the share exchange, each outstanding common share of BullFrog AI, Inc. was split into 25 shares of common stock. Share amounts in our financial statements for 2021 and 2020 have been adjusted to reflect this forward share split and shares exchange. Pursuant to the agreement, 24,223,975 shares of the Company's common stock were issued to the shareholders of BullFrog AI, Inc. in exchange for 100% of the outstanding stock of BullFrog AI, Inc. Upon completion of the exchange, BullFrog AI, Inc. became the Company's wholly-owned subsidiary and the shareholders of BullFrog AI, Inc. held 100% of the common stock of the Company. As a result, BullFrog AI Holdings, Inc. assumed a total of \$330,442 in net liabilities of BullFrog AI, Inc. Both of the entities were controlled before and after the transactions took place at the beginning of the earliest period presented.

#### **BullFrog AI Corporate History**

BullFrog AI, Inc. was incorporated in the State of Delaware on August 25, 2017. Vininder Singh is the founder, CEO and chairman of BullFrog AI.

#### **Our Strategy**

We plan to achieve our business objectives by enabling the successful development of drugs and biologics using a precision medicine approach via our proprietary artificial intelligence platform bfLEAP. We will execute our plan by doing all or any of the following: partnering with biopharmaceutical companies in a fee for service model to assist and enable them with their drug development programs, acquiring rights to and rescuing drugs that have failed FDA review following pivotal Phase 2 or Phase 3 clinical trials (we refer to this rescue process as "drug rescue"), acquiring rights to drugs that are in early stage clinical trials and have not failed FDA review, and discovering new drugs and biologics.

The process for enhancing and developing late-stage failed drugs is to:

- acquire the rights to the failed drug from a biopharmaceutical industry company or university,
- use the proprietary bfLEAP™ AI/ML platform to determine a multi-factorial profile for a patient that would best respond to the drug,
- Rapidly conduct a clinical trial likely with a partner to validate the drug's use for the defined "high-responder" population; and
- Divest/sell the rescued drug asset with new information back to the pharma industry, following positive results of the clinical trial.

We also plan to deploy this strategy for all discovery and early stage clinical candidates. The common objective is to monetize our assets as quickly as possible with no current plan to commercialize any asset. As part of our strategy, we will continue evolving our intellectual property, analytical platform and technologies, build a large portfolio of drug candidates, and implement a model that reduces risk and increases the frequency of cash flow from rescued drugs. This strategy will include strategic partnerships, collaborations, and relationships along the entire business value chain.

We did not produce any revenues through 2021; we generated our first revenues in late 2022 from our services related to the relationship with a pharmaceutic company.

To date, we have not conducted clinical trials on any pharmaceutical drugs and our platform has not been used to identify a drug candidate that has received regulatory approval for commercialization. However, we currently have a strategic relationship with a leading rare disease non-profit organization for artificial intelligence/machine learning ("AI/ML") analysis of late stage clinical data. We have acquired the rights to a series of preclinical and early clinical drug assets from universities and entered into a strategic collaboration with a world renowned research institution to create a HSV1 viral therapeutic platform to engineer immunotherapies for colorectal cancer. We have signed exclusive worldwide license agreements with Johns Hopkins University for a cancer drug that targets glioblastoma (brain cancer), pancreatic cancer, and other cancers. We have also signed an exclusive worldwide license with George Washington University for another cancer drug that targets hepatoceullar carcinoma (liver cancer), and other liver diseases.

Our platform was originally developed by The Johns Hopkins University Applied Physics Laboratory ("JHU-APL"). JHU-APL uses the same technology for applications related to national defense. Over several years, the software and algorithms have been used to identify relationships, patterns, and anomalies, and make predictions that otherwise may not be found. These discoveries and insights provide an advantage when predicting a target of interest, regardless of industry or sector. We have applied the technology to various clinical data sets and have identified novel relationships that may provide new intellectual property, new drug targets, and other valuable information that may help with patient stratification for a clinical trial thereby improving the odds for success. The platform has not yet aided in the development of a drug that has reached commercialization. However, we have licensed one drug candidate that has completed a Phase 1 trial and a second candidate that is in the preclinical stages. Our aim is to use our technology on current and future available data to help us better determine the optimal path for development.

#### **Contract Services**

Our fee for service partnership offering is designed for biopharmaceutical companies, as well as other organizations, of all sizes that have challenges analyzing data throughout the drug development process. We provide the customer with an analysis of large complex data sets using our proprietary artificial intelligence / machine learning platform called bfLEAP<sup>TM</sup>. This platform is designed to predict targets of interest, patterns, relationships, and anomalies. Our service model involves a cash fee plus the potential for rights to new intellectual property generated from the analysis, which can be performed at the discovery, preclinical, or clinical stages of drug development. On September 28, 2022, BullFrog AI entered into a \$185,000 service contract with Sapu Biosciences, LLC, a subsidiary of Oncotellic Therapeutics (OTCQB: OTLC). The scope of the contract is focused on uncovering novel insights related to oncology clinical data for one of their candidate programs.

#### **Collaborative Arrangements**

We will also seek to enter into collaborative arrangements with pharmaceutical companies who have drugs that have failed late Phase 2 or Phase 3 trials. Our revenue from such collaborations will be based on achieving certain milestones as determined by each specific arrangement.

#### Acquisition of Rights to Certain Drugs

In certain circumstances, we may also acquire rights to drugs that are in early stage clinical trials, use our technology to produce a successful later stage precision medicine trial, and divest the asset. The same process may apply to the discovery of new drugs.

**Our Products** 

Product/Platform	Description	Target Market/Indications							
bfLEAPTM – AI/ML platform for analysis of preclinical and/or clinical data	AI/ML analytics platform derived from technology developed at JHU-APL and licensed by the Company.	Biotechnology and pharmaceutical companies and other organizations.							
siRNA	siRNA targeting Beta2-spectrin in the treatment of human diseases developed at George Washington University licensed by the Company	Hepatocellular carcinoma (HCC), treatment of obesity, non- alcoholic fatty liver disease, and non-alcoholic steatohepatitis. Has not yet initiated clinical testing.							
Mebendazole	Improved formulation of Mebendazole developed at Johns Hopkins University and licensed by the Company	Glioblastoma. Has begun the process of clinical testing but has not received regulatory approval for commercialization.							

On January 14, 2022, the Company entered into an exclusive, worldwide, 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 U.S. and worldwide patent applications, and also includes use of this approach for treatment of obesity, non-alcoholic fatty liver disease, and non-alcoholic steatohepatitis. This program is currently in the preclinical stage of development. The Company has not yet initiated development activities or IND-enabling studies on this asset; however, the plan is to conduct this work over the next 24 months. All R&D to date on this candidate has been conducted by the licensor of the technology, George Washington University.

Non-alcoholic fatty liver disease (NAFLD) is a condition in which excess lipids, or fat, build up in the liver. This condition, which is more common in people who have obesity and related metabolic diseases including type 2 diabetes, affects as many as 24% of adults in the US and is associated with risk of progression to more serious conditions, including non-alcoholic steatohepatitis (NASH), with associated liver inflammation and fibrosis, and HCC. Evidence in animal models of obesity suggest that a protein called  $\beta$ 2-spectrin may play a key role in lipid accumulation, tissue fibrosis, and liver damage, and targeting expression or activity of this protein may be a useful approach in treating NASH and liver cancer (Rao et al., 2021).

In February 2022, the Company entered into an exclusive, worldwide, 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 of 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 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. The Company is currently formulating a strategy to find a partner to conduct additional clinical trials with this asset to enable evaluation of safety in humans.

We are able to leverage our drug rescue business by leveraging a powerful and proven AI/ML platform (trade name: bfLEAP<sup>TM</sup>) initially derived from technology developed at JHU-APL. The bfLEAP<sup>TM</sup> 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. The input data for bfLEAP<sup>TM</sup> can include raw data (preclinical and/or clinical readouts), categorical data, sociodemographic data of patients, and various other inputs. Thus, the bfLEAP<sup>TM</sup> platform is capable of capturing the "human experience" of patients in an unbiased manner, and contextualizing it against other disparate data sources from patients (e.g. molecular data, physiological data, etc.) for less biased and more meaningful conclusions (i.e. more ethical AI/ML). It is also uniquely scalable – the bfLEAP<sup>TM</sup> platform is able to perform analysis on large, high-volume data sets (i.e. 'big data') and also able to analyze highly disparate "short and wide" data as well. In terms of visualization, bfLEAP<sup>TM</sup> is able to integrate with most commonly used visualization tools for graph analytics.

We believe the combination of a) scalable analytics (i.e., large data or short/wide data), b) state-of-the-art algorithms, c) unsupervised machine learning, and d) streamlined data ingestion/visualization makes bfLEAP<sup>TM</sup> one of the most flexible and powerful new platforms available on the market.



#### **Our Platform Technology**

We will continue to evolve and improve bfLEAP<sup>TM</sup>, either in-house or with development partners like JHU-APL. The bfLEAP<sup>TM</sup> platform is based on an exclusive, worldwide license granted by JHU.

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. In terms of underlying intellectual property, we have secured a worldwide exclusive license from JHU-APL for the technology – this license covers 3 issued patents, as well as 1 new provisional patent application, non-patent rights to proprietary libraries of algorithms and other trade secrets, and also includes modifications and improvements. In addition, we have a unique business model designed to reduce risk and increase the frequency of cash flow.

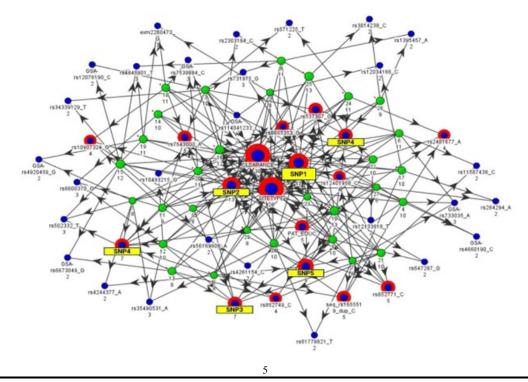
The Company has recently licensed new technology from JHU-APL to evolve the bfLEAP platform to bfLEAP 2.0. This new and improved platform will enable more robust analysis of data with faster and higher precision prediction of the most important variables for identifying patient response to a drug.

Going forward, the Company will continue to evolve the platform and either develop or acquire new capabilities and technologies. These development efforts may be in house or in collaboration with an existing or new technology partners. The Company plans on hiring talent in data science and software development to bolster its in house capabilities.

#### Summary for CATIE Schizophrenia Case Study

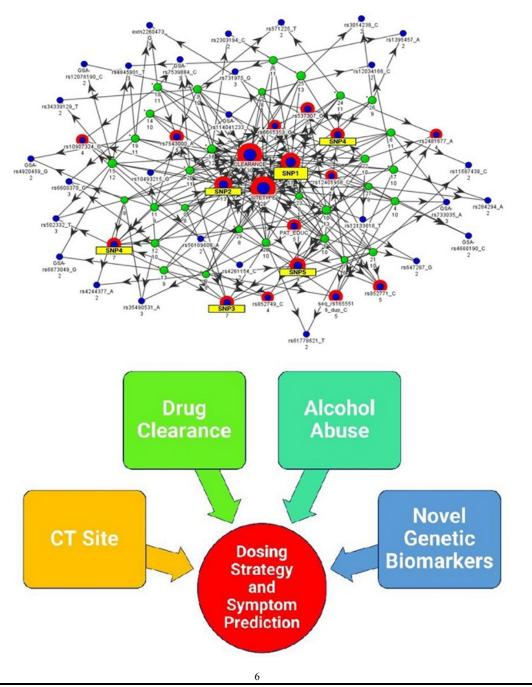
The Company worked with the Lieber Institute for Brain Development to analyze data from the landmark CATIE trials. The CATIE trials were the largest trials ever conducted for anti-psychotic medications. BullFrog analyzed CATIE data from ~200 schizophrenia patients, with a library of almost 1 million genetic data points for each patient, more than 200 non-genetic attributes per patient, and 4 different medications used in the trial. For each of the four medications used, bfLEAPTM analysis revealed new, previously unknown relationships between individual genetic variants and negative patient symptoms. The genetic loci identified represent potential druggable targets, as well as potential stratifying criteria for future clinical trials in schizophrenia.

We performed another analysis on the data using our new advanced clustering algorithms bfLEAP 2.0 but focused on one particular drug named Olanzapine. Our bfLEAP<sup>TM</sup> 2.0 analytical results identified previously unknown, multi-dimensional associations among newly identified genetic variants, drug clearance, clinical trial sites, and clinical outcome variables in schizophrenia patients.



## FIGURE 1 – bfLEAP<sup>TM</sup> Analytical Map

Each green node represents a different sampling of the data, and arrows point to attributes (blue nodes) which were found to be key indicators according to that sampling. Attribute importance is determined by how many samplings identify that attribute as an indicator (i.e., number of incoming arrows to each blue node).



Identification of clustered multi-variate associations (e.g., novel genetic variants, drug clearance, substance abuse) could help us 1) identify novel drug targets, 2) predict which patients are most likely to respond, and 3) identify modifiable factors that could contribute to better outcomes.

#### Summary for Cardiovascular Case Study

The Company worked with an international collaborator in cardiovascular devices to analyze data from an ongoing clinical trial for a new device. BullFrog analyzed data from  $\sim$ 55 patients, with a library of almost 15,000 unique attributes of data for each patient. The data also included adverse events, and key demographic information. For this collaborator, bfLEAP<sup>TM</sup> analysis was able to provide ground truth for the company - confirming multiple correlations and non-correlations within the data. In terms of actionable output, the analytical results confirmed at least two demographic co-variates for the ongoing trial, and also provided a starting point for deeper physiological and molecular studies.

## Our Supply Chain and Customer Base

We have launched our businesses using funds from our initial public offering and through our partnerships and relationships. We have a strategic relationship with FSHD Society, a leading non-governmental organization, for AI/ML analysis of clinical trial data for patients with a rare neuromuscular disorder. We also have several other developing strategic relationships in the project design phase. The Company has executed a joint development deal for a biologics discovery phase opportunity that is directed toward targeted cancer therapeutics. The Company has also obtained exclusive worldwide rights to a Phase 2 ready glioblastoma drug and a discovery phase hepatocellular carcinoma drug from universities. Since we intend to conduct late-stage clinical trials with partners on rescued therapeutic assets, there will be a requirement of drug product or other significant services to plan and execute our clinical development programs. The success of our partnered clinical development programs will require 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 industry-standard guidelines, and packaged for clinical use or sale. Since we are a digital biopharmaceutical company, our clinical development programs will also require, in some cases, establishment of third-party relationships for execution and completion of clinical trials.

#### **Our Market Opportunity**

One aim of our business is to "rescue" drugs that have failed in phase 3 clinical trials by using our technology to analyze all available data with the goal of designing a precision medicine clinical trial that will have a better chance of being successful. The graphic below illustrates the estimated market opportunity for these failed drugs. The top arrow shows the number of failed phase 3 trials for several disease categories over a 5-year period. The arrows below provide our assumptions for narrowing or discounting certain parameters associated with the market size calculation. The final arrow shows the math behind the \$47.1B. To date, we have not penetrated the failed drug market, however; we are actively searching for failed drug opportunities.

2013-2018 • Neurology - 70	
Peak year sales \$400M	
Discount for subpopulation - 25% of total - \$300M discounted value per drug	
Addressable Market • 157 drugs (oncology + psychiatry + neurology) x \$300M per drug = \$47.1 billion • \$47.1 billion serviceable market	

Identification of candidates with potential for rescue may be challenging and require significant resources, and once these assets are identified the Company may find it challenging to license them under favorable terms in order to create value for shareholders. Subsequent development of these assets for clinical testing may require significant effort and resources. Ultimately, these assets must undergo rigorous clinical testing and approval by FDA or comparable regulatory authorities in other countries in order to be marketed. A key part of our strategy is to partner our R&D programs. In addition, we do not intend on commercializing drugs and instead will seek to divest each drug asset to a company that will commercialize the drug. The Company may receive future royalties in come transactions.

The following graphic illustrates the global revenue forecast for applying AI in the pharmaceutical industry, as well as the increase in anticipated market spend and annual growth rate for AI solutions per certain application areas.



Source: Frost & Sullivan - "Growth Insight - Role of A.I. in the Pharmaceutical Industry" (Sept. 2019)

## **Intellectual Property**

## Patents

We have exclusive worldwide rights to the following patents related to our intellectual property:

Johns Hopkins University Licensed Intellectual Property:

Title	Serial Number	File Date	Application Type	Country	Status	Patent Number	Expiration Date	Assignee
An Improved Formulation of Mebendazole and Drug Combination to Improve Anti- cancer Activity	62/112,706	06 Feb 2015	Provisional	US	Expired			The Johns Hopkins University
An Improved Formulation of Mebendazole and Drug Combination to Improve Anti- cancer Activity	PCT/US2016/016968	08 Feb 2016	РСТ	PCT - Parent	Expired		11 Aug 2016	The Johns Hopkins University
MEBENDAZOLE POLYMORPH FOR TREATMENT AND PREVENTION OF TUMORS	15/548,959	04 Aug 2017	РСТ	US	GRANTED	11,110,079	08 Feb 2036	The Johns Hopkins University
Mebendazole Polymorph For Treatment And Prevention Of Tumors	16747414.7	08 Feb 2016	РСТ	EPO	GRANTED	Pending	08 Feb 2036	The Johns Hopkins University
MEBENDAZOLE POLYMORPH FOR TREATMENT AND PREVENTION OF TUMORS	253854	08 Feb 2016	РСТ	Israel	GRANTED	253854	08 Feb 2036	The Johns Hopkins University
An Improved Formulation of Mebendazole and Drug Combination to Improve Anti- cancer Activity	2016800144274	08 Feb 2016	РСТ	China	GRANTED	1ZL20168- 0014427.4	08 Feb 2036	The Johns Hopkins University
An Improved Formulation of Mebendazole and Drug Combination to Improve Anti- cancer Activity	201717028684	08 Feb 2016	РСТ	India	GRANTED	352734	08 Feb 2036	The Johns Hopkins University
Mebendazole Polymorph For Treatment And Prevention Of Tumors	2017-541687	08 Feb 2016	РСТ	Japan	GRANTED	6796586	08 Feb 2036	The Johns Hopkins University
CONTINUATION: Mebendazole Polymorph For Treatment And Prevention Of Tumors	17/402,131	13 Aug 2021	CON	United States	PENDING			The Johns Hopkins University
			9					

## George Washington University Licensed Intellectual Property:

The provisional patent numbers 63/113,745 and 63/147,141 were both converted into a single PCT application (PCT/US2021/059245) with an expiration date of November 12, 2041, as shown in table below.

GWU ID		Serial Number	File Date	Application Type	Country	Status	Patent No.	Expiration Date	Composition , MoU
020-030- Mishra- PRV	B-SPECTRIN (SPTBN1) DEFICIENCY PROTECTS MICE FROM HIGH-FAT DIET- INDUCED LIVER DISEASE AND CANCER DEVELOPMENT	63/113,745	13 Nov 2020	Provisional	US	CONVERTED TO PCT		13 Nov 2021	Both filed
020-030- Mishra- CON	B-SPECTRIN (SPTBN1) DEFICIENCY PROTECTS MICE FROM HIGH-FAT DIET- INDUCED LIVER DISEASE AND CANCER DEVELOPMENT	63/147,141	08 Feb 2021	Provisional- Continuation	US	CONVERTED TO PCT		13 Nov 2021 (PCT filed)	Both filed
020-030- Mishra- PCT	B-SPECTRIN (SPTBN1) DEFICIENCY PROTECTS MICE FROM HIGH-FAT DIET- INDUCED LIVER DISEASE AND CANCER DEVELOPMENT	PCT/US2021 /059245	12 Nov 21	PCT	US	PENDING		12 Nov 2041	Both filed

Title	Country	Status	Patent #	Expiration Date
B-Spectrin (SPTBN1) deficiency protects mice from high fat diet- induced liver disease and cancer development	US	Converted to PCT	63/113,745	11/13/21
B-Spectrin (SPTBN1) deficiency protects mice from high fat diet- induced liver disease and cancer development	US	Converted to PCT	63/147,141	11/13/21 PCT Filed
B-Spectrin (SPTBN1) deficiency protects mice from high fat diet- induced liver disease and cancer development	US	Pending	PCT/US2021/059245	Pending

John Hopkins University Applied Physics Lab Licensed Intellectual Property:

					Expiration	
Title	Serial Number	File Date	Country	Status	Date	Assignee
Apparatus and Method for Distributed Graph Processing	U.S. Patent 10,146,801	7/13/2015	US	Granted	3/2/2037	The Johns Hopkins University
Method and Apparatus for Analysis and Classification of High Dimensional Data Sets	U.S. Patent 10,936,965	10/5/2017	US	Granted	9/25/2038	The Johns Hopkins University
Generalized Low Entropy Mixture Model	U.S. Patent 10,839,256	4/2/2018	US	Granted	12/15/2038	The Johns Hopkins University

## Licenses

We hold the following licenses related to our intellectual property:

Licensor	Licensee	Description of Rights Granted
Johns Hopkins University Applied Physics Lab	BullFrog AI, Inc.	Worldwide, exclusive rights for therapeutics development and analytical services
George Washington University	BullFrog AI Holdings	Worldwide, exclusive rights for therapeutics development
Johns Hopkins University	BullFrog AI Holdings	Worldwide, exclusive rights for therapeutics development



On February 7, 2018, we entered into a License Agreement (the "License Agreement") with JHU-APL, a Maryland limited liability company ("JHU"). Pursuant to the License Agreement, JHU-APL granted the Company exclusive rights to intellectual property of JHU related to analytical services for applications in biological and chemical derived pharmaceutical therapeutics. The License Agreement provides for the grant of an exclusive, worldwide, royalty-bearing license by JHU to the Company, with the right to sublicense, in order to conduct research using the patent rights and know-how and to develop and commercialize products in the field using the patent rights and know-how. In consideration of the rights granted to the Company under the License Agreement, the Company granted JHU received a warrant equal to five (5%) percent of the then fully diluted equity base of the Company, which was diluted following our public offering. Under the terms of the License Agreement, the Company is required to use commercially reasonable efforts to meet certain development milestones and minimum net sales milestones, and JHU will be entitled to eight (8%) percent of net sales for the services provided by the Company in which the JHU license was utilized, as well as fifty (50%) percent of all sublicense revenues received by the Company. In addition, the Company is required to pay JHU an annual maintenance fee of \$1,500. The Company is also obligated to make minimum annual payments. These minimum annual payments to JHU were amended on September 3, 2020 to \$20,000 in calendar year 2022, \$80,000 in calendar year 2023, \$300,000 in calendar year 2024, and \$300,000 in calendar year 2025 and each year thereafter, which may be offset against royalties paid by the Company for the year in which the minimum annual royalty becomes due.

The License Agreement will, unless sooner terminated, continue in each country until the date of expiration of the last to expire patent included within the patent rights in that country, or if no patents issue, then for 10 years. The License Agreement may be terminated by the Company upon 60 days' written notice in its discretion. The License Agreement may also be terminated by JHU if the Company is in material breach of the License Agreement and fails to cure such breach within a 60-day cure period commencing upon notice. A material breach by the Company may include a delinquency with respect to payment or the failure by the Company to timely achieve a specified milestone.

We also have exclusive, worldwide licenses to other intellectual property from JHU that are being held as trade secrets related to our algorithm libraries, pattern recognition, shallow-and-wide data sets, and time series correlation. We anticipate that new intellectual property (patents, copyrights, trademarks, trade secrets, etc.) will be generated through the course of executing our strategic development projects, and also through the course of improving, modifying, and scaling our bfLEAP<sup>TM</sup> platform. In October 2021, we amended the agreement with JHU-APL to include additional advanced AI technology. Currently, the latest patent grant date was in March 2021.

On July 8, 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from JHU-APL for the additional technology (the "2022 License Agreement"). This license provides additional intellectual property rights including patents, copyrights and knowhow to be utilized under the Company's bfLEAP<sup>TM</sup> analytical AI/ML platform. Under the terms of the 2022 License Agreement, JHU will be entitled to eight (8%) percent of net sales for the services provided by the Company to other parties and 3% for internally development drug projects in which the JHU license is utilized. The 2022 License Agreement also contains tiered sub licensing fees that start at 50% and reduce to 25% based on revenues. In addition, the Company is required to pay JHU an annual maintenance fee of \$1,500. Minimum annual payments are set to be \$30,000 for 2022, \$80,000 for 2023, and \$300,000 for 2024 and beyond, all of which are creditable by royalties. The financial terms of the new license agreement replace the original terms and are not duplicative.

#### George Washington University - Beta2-spectrin siRNA License

On January 14, 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from GWU for rights to use siRNA targeting Beta2-spectrin in the treatment of human diseases, including 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. This program is currently in the preclinical stage of development. The Company has not yet initiated development activities or IND-enabling studies on this asset; however, the plan is to conduct this work over the next 24 months. All R&D to date on this candidate has been conducted by the licensor of the technology, George Washington University. The term of the agreement began on January 14, 2022 and ends on the expiration date of the last patent to expire or 10 years after the first sale of a licensed product if no patents have issued. The license can be terminated by the licensee upon 60 days' written notice, or by the licensor if the Company is more than 30 days late in paying amounts owed to the licensor and does not make payment upon demand, or in the event of any material breach of the license that is not cured within 45 days.

Non-alcoholic fatty liver disease (NAFLD) is a condition in which excess lipids, or fat, build up in the liver. This condition, which is more common in people who have obesity and related metabolic diseases including type 2 diabetes, affects as many as 24% of adults in the US and is associated with risk of progression to more serious conditions, including non-alcoholic steatohepatitis (NASH), with associated liver inflammation and fibrosis, and hepatocellular carcinoma (HCC). Evidence in animal models of obesity suggest that a protein called  $\beta$ 2-spectrin may play a key role in lipid accumulation, tissue fibrosis, and liver damage, and targeting expression or activity of this protein may be a useful approach in treating NASH and liver cancer (Rao et al., 2021).

In consideration of the rights granted to the Company under the license agreement, GWU received 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.

Aggregate payments made to GWU to date include the \$20,000 License Initiation Fee and an additional \$6,550 to reimburse the licensor for past patent costs. Aggregate future milestone costs could reach \$860,000 if the drug successfully completes clinical trials and is the subject of a New Drug Application (NDA) to the U.S. FDA. Future milestones on sales revenue are limited to \$1M on the first \$20M in net sales.

#### Johns Hopkins University – Mebendazole License

On February 22, 2022, the Company entered into an exclusive, worldwide, royalty-bearing license from 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 of 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 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. The Company is currently formulating a strategy to conduct additional clinical trials with this asset to enable evaluation of safety in humans.

The license covers six (6) issued patents and one (1) pending application, with the term of the agreement beginning on February 22, 2022 and ending on the date of expiration of the last to expire patent. The license can be terminated by the licensee upon 90 days' written notice, or by the licensor in the event of any material breach of the license that is not cured within 30 days. In consideration of the rights granted to the Company under the license agreement, JHU will receive a staggered Upfront License Fee of \$250,000, with the first \$50,000 payment due within 30 days of the effective date. 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 addition, the Company is required to pay JHU minimum annual royalty payments of \$5,000 for 2023, \$10,000 for 2024, \$20,000 for 2025, \$30,000 for 2026 and \$50,000 for 2027 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. Aggregate payments made to date include the initial \$50,000 upfront fee and an additional \$79,232.53 to reimburse the licensor for past patent costs. Aggregate future milestone costs could reach \$1,500,000 if the drug successfully completes Phase II and III clinical trials and is approved for sale and marketing by the US FDA. Future milestones on sales revenue are \$110 on the first \$20M in sales revenue, \$2M in the first year cumulative sales revenue exceeds \$100M, \$10M in the first year cumulative sales revenue exceeds \$18.

## JHU – Mebendazole Prodrug License

On October 13, 2022, the Company entered into an exclusive, worldwide, 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. The term of the agreement began on October 13, 2022and continues until the date of expiration of the last to expire patent, or for 20 years from the effective date of the agreement if no patents issue. The license can be terminated by the Company upon 90 days' written notice, or by the licensor in the event of any material breach of the license that is not cured by the Company within 30 days.

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 totaling \$33,265 and will be responsible for reimbursing licensors for future patent costs. Under the terms of the License Agreement, the licensors will be entitled to a four percent (4%) royalty on net sales subject to annual minimums upon first commercial sale of a licensed product, as well sublicense or assignment fees in the event the Company sublicenses or assigns their rights to use the technology. The Sublicense fee amount declines as the Company advances the clinical development of the licensed technology. The Company is required to pay minimum annual royalties (MAR) beginning in year 4 of the agreement. The MAR for year 4 will be \$5,000, increasing to \$10,000 in year 5, \$20,000 in year 6, \$30,000 in year 7, and \$50,000 in year 8 and subsequent years. The Company will be responsible for milestone payments for patent issuance of up to \$50,000 and clinical development milestones up to and including approval of an NDA totaling up to \$2.3M. The Company will be required to pay a commercial milestone of \$1M once sales reach \$20M in the US, \$2M when sales in the US reach \$100M, \$10M when US sales reach \$500M, and \$20M when US sales exceed \$1B.

#### Competition

The pharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition, and a strong emphasis on proprietary products. The immuno-oncology, neuroscience, and rare disease segments of the industry in particular are highly competitive. While we believe that our technology, development experience and scientific knowledge provide competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical, and biotechnology companies, academic institutions and governmental agencies, and public and private research institutions.

Many of our competitors may have significantly greater financial resources, and expertise in research and development, manufacturing, preclinical studies, conducting clinical trials, obtaining regulatory approvals, and marketing approved medicines than we do. Mergers and acquisitions in the pharmaceutical, biotechnology, and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and in establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to or necessary for our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, if any, the level of generic competition and the availability of reimbursement from government and other third-party payors.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize medicines that are safer, are more effective, have fewer or less severe side effects, are more convenient or are less expensive than any medicines we may develop. Our competitors also may obtain FDA or other regulatory approval for their medicines more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic medicines. There are many generic medicines currently on the market for certain of the indications that we are pursuing, and additional generics are expected to become available over the coming years. If our therapeutic product candidates are approved, we expect that they will be priced at a significant premium over competitive generic medicines.

Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. If the product candidates of our priority programs are approved for the indications for which we are currently planning clinical trials, they will compete with the drugs discussed below and will likely compete with other drugs currently in development.

### **bfLEAP**

The analytics industry and application of AI in healthcare is growing rapidly. Competition exists along the entire continuum of the drug development process from discovery to commercialization and beyond. We believe the weakness of the industry is the quality of the data and we believe bfLEAP provides several competitive advantages, that will position the Company for success, First, bfLEAP is highly scalable and can process data from small to extremely large complex data sets without the need for additional code being developed. Second, it is adept at processing and analyzing incomplete data and making predictions that we do not believe other technologies are capable of doing. Finally, bfLEAP has the ability to extract the most important features for analysis out of extremely large complex data sets using unsupervised machine learning algorithms, thereby greatly simplifying complex problems. Since data quality is a problem that exists in the healthcare industry, we see these as major differentiators. The ability to make predictions, find relationships and patterns and anomalies in extremely large complex data sets has been demonstrated by the Applied Physics Lab in other applications and sectors. Finally, the algorithms used by bfLEAP are proprietary and protected, having been developed at Johns Hopkins University Applied Physics Lab. We believe most of the competitors rely on open source algorithms and we also believe that we have already demonstrated our superiority via the August 2021 publication in DeepAI.org.

#### **Government Regulation**

The FDA does not currently require approval of AI technologies used to aid in therapeutics, but that could change in the future. The FDA will regulate any clinical trials conducted by the Company.

Our clinical development programs will, in some cases, require regulatory review of preclinical and/or clinical data by the FDA or other governing agencies, and subsequent compliance with applicable federal, state, local, and foreign statutes and regulations. The results of the clinical trials that we conduct will be evaluated by the FDA and other regulatory bodies. The comments and approvals that are obtained are expected to lead to milestone payments under the collaborative agreement. Accordingly, our ability to navigate the regulatory process is extremely important to the success of the Company. We believe that we have a competitive advantage in this process due to primarily focusing on drug candidates that already have some level of success in clinical trials. Previous success of a particular candidate in trials combined with our precision medicine approach to clinical trial design using our bfLEAP platform, will de-risk the development process and improve the chances for success.

#### **Government Regulation and Product Approval**

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

#### FDA Approval Process

In the United States, pharmaceutical products are subject to extensive regulation by the FDA. The Federal Food, Drug, and Cosmetic Act (FD&C Act) and other federal and state statutes and regulations govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling and import and export of pharmaceutical products. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending new drug applications (NDAs), warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution.

Pharmaceutical product development for a new product or certain changes to an approved product in the U.S. typically involves preclinical laboratory and animal tests, the submission to FDA of an investigational new drug application (IND) which must become effective before clinical testing may commence, and adequate and well-controlled clinical trials to establish the safety and effectiveness of the drug for each indication for which FDA approval is sought. Satisfaction of FDA pre-market approval requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease.

Preclinical tests include laboratory evaluation of product chemistry, formulation and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements, including good laboratory practices. The results of preclinical testing are submitted to FDA as part of an IND along with other information, including information about product chemistry, manufacturing and controls, and a proposed clinical trial protocol. Long-term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted. A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If FDA has neither commented on nor questioned the IND within this 30-day period, the clinical trial proposed in the IND may begin. Clinical trials involve the administration of the investigational new drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted: (i) in compliance with federal regulations; (ii) in compliance with good clinical practice, or GCP, an international standard meant to protect the rights and health of patients and to define the roles of clinical trial sponsors, administrators and monitors; as well as (iii) under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol involving testing on U.S. patients and subsequent protocol amendments must be submitted to FDA as part of the IND.

Clinical trials to support NDAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase 1, the initial introduction of the drug into healthy human subjects or patients, the drug is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses, and, if possible, early evidence of effectiveness. Phase 2 usually involves trials in a limited patient population to determine the effectiveness of the drug for a particular indication, dosage tolerance and optimum dosage, and to identify common adverse effects and safety risks. If a drug demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit FDA to evaluate the overall benefit-risk relationship of the drug and to provide adequate information for the labeling of the drug. In most cases, FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the drug. A single Phase 3 trial with other confirmatory evidence may be sufficient in rare instances, such as where the study is a large multicenter trial demonstrating internal consistency and a statistically very persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity or prevention of a disease with a potentially serious outcome and confirmation of the result in a second trial would be practically or ethically impossible.

After completion of the required clinical testing, an NDA is prepared and submitted to FDA. FDA approval of the NDA is required before marketing of the product may begin in the U.S. The NDA must include the results of all preclinical, clinical and other testing and a compilation of data relating to the product's pharmacology, chemistry, manufacture and controls. The cost of preparing and submitting an NDA is substantial. The submission of most NDAs is additionally subject to a substantial application user fee, and the applicant under an approved NDA is also subject to an annual program fee for each prescription product. These fees are typically increased annually. Sponsors of applications for drugs granted Orphan Drug Designation are exempt from these user fees.

FDA may also refer applications for novel drug products, or drug products that present difficult questions of safety or efficacy, to an outside advisory committee – typically a panel that includes clinicians and other experts – for review, evaluation and a recommendation as to whether the application should be approved. FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations.

Before approving an NDA, FDA will typically inspect one or more clinical sites to assure compliance with GCP. Additionally, FDA will inspect the facility or the facilities at which the drug is manufactured. FDA will not approve the product unless compliance with current good manufacturing practices (cGMPs) is satisfactory and the NDA contains data that provide substantial evidence that the drug is safe and effective in the indication studied.

## Fast Track Designation

FDA is required to facilitate the development, and expedite the review, of drugs that are intended for the treatment of a serious or life-threatening disease or condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the Fast Track program, the sponsor of a new drug candidate may request that FDA designate the drug candidate for a specific indication as a Fast Track drug concurrent with, or after, the filing of the IND for the drug candidate. FDA must determine if the drug candidate qualifies for Fast Track Designation within 60 days of receipt of the sponsor's request.

If a submission is granted Fast Track Designation, the sponsor may engage in more frequent interactions with FDA, and FDA may review sections of the NDA before the application is complete. This rolling review is available if the applicant provides, and FDA approves, a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, FDA's time period goal for reviewing an application does not begin until the last section of the NDA is submitted. While we may seek Fast Track Designation, there is no guarantee that we will be successful in obtaining any such designation. Even if we do obtain such designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. A Fast Track Designation does not ensure that the product candidate will receive marketing approval or that approval will be granted within any particular timeframe. Additionally, Fast Track Designation may be withdrawn by FDA if FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

#### **Post-Approval Requirements**

Once an NDA is approved, a product will be subject to certain post-approval requirements. For instance, FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Adverse event reporting and submission of periodic reports are required following FDA approval of an NDA. FDA also may require post-marketing testing, known as Phase 4 testing, REMS and surveillance to monitor the effects of an approved product, or FDA may place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control, drug manufacture, packaging and labeling procedures must continue to conform to cGMPs after approval. Drug manufacturers and certain of their subcontractors are required to register their establishments with FDA and certain state agencies. Registration with FDA subjects entities to periodic unannounced inspections by FDA, during which the Agency inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production and quality-control to maintain compliance with cGMPs. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered.



#### **Generic Competition**

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent whose claims cover the applicant's product. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential generic competitors in support of approval of an abbreviated new drug application (ANDA). An ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths and dosage form as the listed drug and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. Other than the requirement for bioequivalence testing, ANDA applicants are not required to conduct, or submit results of, preclinical or clinical tests to prove the safety or effectiveness of their drug product. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA's Orange Book. Specifically, the applicant must certify that (i) the required patent information has not been filed; (ii) the listed patent has expired; (iii) the listed patent has not expired but will expire on a particular date and approval is sought after patent expiration; or (iv) the listed patent is invalid or will not be infringed by the new product (a Paragraph IV certification). The ANDA applicant may also elect to submit a section viii statement certifying that its proposed ANDA label does not contain (or carve out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent. If the applicant does not challenge the listed patents or certifies that the listed patents will not be infringed by the new product, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired. If the ANDA applicant has provided a Paragraph IV certification, the NDA and patent holders may then initiate a patent infringement lawsuit in response. The filing of a patent infringement lawsuit within 45 days of the receipt of a such certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit, or a decision in the infringement case that is favorable to the ANDA applicant.

#### Exclusivity

Upon NDA approval of a new chemical entity (NCE) that drug receives five years of marketing exclusivity during which FDA cannot receive any ANDA seeking approval of a generic version of that drug. An ANDA may be submitted one year before NCE exclusivity expires if a Paragraph IV certification is filed. If there is no listed patent in the Orange Book, there may not be a Paragraph IV certification, and, thus, no ANDA may be filed before the expiration of the exclusivity period. Certain changes to a drug, such as the addition of a new indication to the package insert, can be the subject of a three-year period of exclusivity if the application contains reports of new clinical investigations (other than bioavailability studies) conducted or sponsored by the sponsor that were essential to approval of the application. FDA cannot approve an ANDA for a generic drug that includes the change during the period of exclusivity.

#### Patent Term Extension

After NDA approval, owners of relevant drug patents may apply for up to a five-year patent extension. The allowable patent term extension is calculated as half of the drug's testing phase (the time between IND application and NDA submission) and all of the review phase (the time between NDA submission and approval up to a maximum of five years). The time can be shortened if FDA determines that the applicant did not pursue approval with due diligence. The total patent term after the extension may not exceed 14 years, and only one patent can be extended. For patents that might expire during the application phase, the patent owner may request an interim patent extension. An interim patent extension increases the patent term by one year and may be renewed up to four times. For each interim patent extension granted, the post-approval patent extension is reduced by one year. The director of the United States Patent and Trademark Office must determine that approval of the drug covered by the patent for which a patent extension is being sought is likely. Interim patent extensions are not available for a drug for which an NDA has not been submitted.

### Other Healthcare Laws

In the United States, biotechnology company activities are subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, the Centers for Medicare & Medicaid Services (CMS), other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General and the Office for Civil Rights), the U.S. Department of Justice (DOJ) and individual U.S. Attorney offices within the DOJ, and state and local governments. For example, research, sales, marketing and scientific/educational grant programs have to comply with the anti-fraud and abuse provisions of the Social Security Act, the federal false claims laws, the privacy and security provisions of the Health Insurance Portability and Accountability Act (HIPAA) and similar state laws, each as amended, as applicable.

Also, many states have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Data privacy and security regulations by both the federal government and the states in which business is conducted may also be applicable. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes requirements relating to the privacy, security and transmission of individually identifiable health information. HIPAA requires covered entities to limit the use and disclosure of protected health information to specifically authorized situations and requires covered entities to implement security measures to protect health information that they maintain in electronic form. Among other things, HITECH made HIPAA's security standards directly applicable to business associates, independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

#### Insurance Coverage and Reimbursement

Significant uncertainty exists as to the insurance coverage and reimbursement status of any products for which we may obtain regulatory approval. In the United States, sales of any product candidates for which regulatory approval for commercial sale is obtained will depend in part on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities and health programs in the United States such as Medicare and Medicaid, managed care providers, private health insurers and other organizations. These third-party payors are increasingly reducing reimbursements for medical products and services. The process for determining whether a payor will provide coverage for a drug product may be separate from the process for setting the reimbursement rate that the payor will pay for the drug product. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of FDA-approved drugs for a particular indication. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, coverage and reimbursement for drug products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

#### **Human Capital Resources**

As of February 10, 2023, the Company has 4 full-time employees and consultants, including its Chief Executive Officer Vininder Singh and its Chief Financial Officer, Dane Saglio and 7 part-time employees, advisors, and consultants. None of these employees are covered by a collective bargaining agreement, and we believe our relationship with our employees is good. We also engage consultants on an as-needed basis to supplement existing staff.

#### Properties

Currently, the Company does not own any real property. All of the Company's employees work virtually.

#### Legal Proceedings

The Company is not a party to any legal proceedings.

#### **Corporate Information**

BullFrog AI Holdings, Inc. was incorporated in the State of Nevada on February 18, 2020. Our principal business address is 325 Ellington Blvd, Unit 317, Gaithersburg, MD 20878. Our website address is www.bullfrogai.com. The references to our website in this annual report are inactive textual references only. The information on our website is neither incorporated by reference into this annual report nor intended to be used in connection with this annual report. All of our operations are currently conducted through BullFrog AI Holdings, Inc.

We file annual, quarterly, and current reports, proxy statements and other information with the U.S. Securities Exchange Commission (the "SEC"). These filings are available to the public on the Internet at the SEC's website at http://www.sec.gov.

#### **ITEM 1A. RISK FACTORS**

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

#### ITEM 1B. UNRESOLVED STAFF COMMENTS

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

## **ITEM 2. PROPERTIES**

The Company's principal business address is 325 Ellington Blvd, Unit 317, Gaithersburg, MD 20878, and the telephone number at such address is 408-663-5247. Currently, the Company does not own any real property. All of the Company's employees work virtually.

## **ITEM 3. LEGAL PROCEEDINGS**

We are not currently a party to any legal or administrative proceedings. Our current officers and directors have not been convicted in a criminal proceeding nor have they been permanently or temporarily enjoined, barred, suspended or otherwise limited from involvement in any type of business, securities or banking activities.

#### **ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

#### PART II

## ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

#### Information with Respect to our Common Stock and Tradeable Warrants

Our common stock is traded on the Nasdaq Capital Market, or Nasdaq, and began trading under the symbol "BFRG" on February 14, 2023. Our tradeable warrants are traded on Nasdaq and began trading under the symbol "BFRGW" on February 14, 2023.

#### **Holders of Record**

As of April 14, 2023 we had 19 shareholders of record of our common stock.

#### **Dividend Policy**

Holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available. We have not paid any dividends since our inception, and we presently anticipate that all earnings, if any, will be retained for development of our business. Any future disposition of dividends will be at the discretion of our Board of Directors and will depend upon, among other things, our future earnings, operating and financial condition, capital requirements, and other factors.

#### **Recent Sales of Unregistered Securities**

None.

#### Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item with respect to securities authorized for issuance under equity compensation plans is set forth in Part III, Item 12 of this Annual Report on Form 10-K.

#### **Issuer Purchases of Equity Securities**

The Company did not repurchase any of its equity securities during the fourth quarter ended December 31, 2022.

#### Use of Proceeds from the Sale of Registered Securities

On February 13, 2023, our Registration Statement, as amended, and originally filed on Form S-1 (File No. 333-267951) was declared effective by the SEC for our initial public offering of 1,317,647 units, including 197,647 additional common stock, tradeable warrants and/or non-tradeable warrants, by the underwriters pursuant to the exercise of the over-allotment option, each at an offering price of \$6.48 per share, \$0.01 per tradeable warrant, and/or \$0.01 per non-tradeable warrant, for aggregate gross proceeds of approximately \$8.4 million. After deducting underwriting discounts and commissions and other estimated offering expenses incurred by us of approximately \$1.1 million, the net proceeds from the offering were approximately \$7.3 million. WallachBeth Capital LLC acted as sole book-running manager and the representative of the underwriters of the initial public offering. No offering costs were paid or are payable, directly, or indirectly, to our directors or officers, to persons owning 10% or more of any class of our equity securities, or to any of our affiliates. Our common stock and tradeable warrants are traded on Nasdaq under the symbols "BFRG" and "BFRGW", respectively.

There has been no material change in the expected use of the net proceeds from our IPO as described in our final prospectus filed with the SEC on February 16, 2023. Upon receipt, the net proceeds from our IPO were held in cash, cash equivalents and short-term investments. As of March 31, 2023, we have used approximately \$1.9 million of the net proceeds from the IPO, primarily on D&O Insurance, repayment of debt that was not converted in the IPO and accrued expenses for technology access, consultants and compensation as well as the costs for operations in the first quarter of 2023. Pending such uses, we plan to continue investing the unused proceeds from the IPO in fixed, non-speculative income instruments and money market funds.

#### **ITEM 6. Reserved**

Not applicable.

#### ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

The following discussion and analysis of the results of operations and financial condition of Bullfrog AI Holdings, Inc. ("Bullfrog") as of and for the years ended December 31, 2022 and 2021 should be read in conjunction with our consolidated financial statements and the notes to those consolidated financial statements that are included elsewhere in this Annual Report. 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. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains statements that are forward-looking. These statements are based on current expectations and assumptions that are subject to risk, uncertainties and other factors. These statements are often identified by the use of words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate," or "continue," and similar expressions or variations. Actual results could differ materially because of the factors discussed in "Risk Factors" elsewhere in this Annual Report, and other factors that we may not know.

#### **OVERVIEW**

Bullfrog AI Holdings, Inc. was incorporated in the State of Nevada on February 6, 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 AI/ML platform (trade name: bfLEAP<sup>TM</sup>) was created from technology originally developed at The Johns Hopkins University Applied Physics Laboratory (JHU-APL).

In February 2018, BullFrog AI Holdings secured the original exclusive, worldwide, royalty-bearing license from JHU-APL for the technology. 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. We entered into a license agreement in July 2022 that provides the Company with new intellectual property and also encompasses most of the intellectual property from the February 2018 license. Our objective is to utilize our for a precision medicine approach toward drug development with biopharmaceutical collaborators, as well as our own internal clinical development programs. We believe the bfLEAP<sup>TM</sup> 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<sup>TM</sup> 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 development and divestiture; although, we will also consider collaborations for earlier stage drugs. We hope to accomplish this through strategic acquisitions of current clinical stage and failed drugs for in-house development, or through strategic partnerships with biopharmaceutical industry companies.

On July 8, 2022, the Company entered into an exclusive, worldwide, royalty-bearing license from JHU-APL for the additional technology. The new license provides additional intellectual property rights including patents, copyrights and knowhow to be utilized under the Company's bfLEAP<sup>TM</sup> analytical AI/ML platform. In consideration of the new license, the Company issued to JHU-APL 39,879 shares of common stock. In September 2020 and October of 2021, the Company executed amendments to the original 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. 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 3% for internally development 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, the Company is required to pay JHU an annual maintenance fee of \$1,500. Minimum annual payments are set to be \$30,000 for 2022, \$80,000 for 2023, and \$300,000 for 2024 and beyond, all of which are creditable by royalties.

We will continue to evolve and improve bfLEAPTM, 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 begun to ramp our business using funds from our initial public offer offering and through our partnerships and relationships. We currently have a strategic relationship 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 hepatoceullar carcinoma (liver cancer), and other liver diseases. 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 a 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 such subsimment of third-party relationships for execution and completion of clinical trials. Over the next 24 months, the Company expects to spend approximately \$2.1 million on service offering products, preclinical IND enabling activities and on R&D to enable future clinical trials evaluating our drug assets for new disease indications.

#### **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 work flow or analysis of discrete data sets.

In the future, the second part of our strategy involves acquiring the rights to clinical stage drugs, using our bfLEAP technology to design a precision medicine trial, conduct the trial with a partner, and sell the asset. This approach may also apply to earlier phases in the drug development process such as discovery and preclinical. In any case, the objective is to create near term value and exit and monetize as quickly as possible, preferably within approximately 30 months.

#### **Results of Operations**

#### For the years ended December 31, 2022 and 2021

In late 2022, the Company recognized its first service revenues of \$10,000 related to an analysis contract with a small pharmaceutical company. The Company previously had not recorded any revenues. Through the end of 2022, the Company has an accumulated deficit of approximately \$4,399,000. Net loss from operations in 2022 was approximately \$2,455,000 versus \$555,000 in 2021. The 2022 increase reflects the full year costs of engaging advisors and consultants and other costs associated with preparing the Company for its initial public offering including the costs related to auditing the Company's past and current financial statements. Cash used in operations in 2022 was approximately \$911,000 versus approximately \$382,000 in 2021 and net cash inflows from financing activities in 2022 was approximately \$967,000 versus approximately \$387,000 in 2021.

#### Liquidity and Capital Resources

In 2021, we received net proceeds of approximately \$387,000, primarily from the sale of a SAFE note (\$150,000) and a convertible promissory note (\$99,900) and three unsecured promissory notes (\$49,000) to a related party. In addition, in July and December 2021, the Company sold convertible bridge notes to two unrelated parties and received net proceeds of approximately \$88,000. In the period ended December 31, 2022 the Company received net proceeds from the sale of Convertible Bridge Notes of approximately \$1,016,000 and repaid the unsecured promissory notes sold in 2021 in the amount of \$49,000.

Through 2021, the Company primarily operated with only one full time employee and a series of consultants. During this period, the primary activities included: technology evaluation, acquisition and validation, capital acquisition and business development activities which in general, have readied the Company for contract services while exploring strategic partnering and asset acquisition. The majority of this was paid to employees and consultants as compensation. In 2021, the Company used approximately \$382,000 on operating activities including approximately \$203,000 in salaries and approximately \$150,000 on professional services and fees directly related to preparation for the intended IPO. The Company also made payments totaling \$25,000 under two evaluation/option agreements for the two drug development programs licensed in 2022. In 2022, three consultants engaged by the Company became part time employees and the Company now has four employees. For the year ended December 31, 2022, the Company used approximately \$911,000 on operating activities versus approximately \$382,000 for the same period in 2021. The 2022 cash use included approximately \$548,000 in salaries, approximately \$634,000 in consulting and professional fees including legal, accounting and auditing fees as well as consulting fees for operational activities and approximately \$609,000 in technology license fees, patent cost reimbursements and minimum annual royalties which has been recorded as a research & development expense.



Through December 31, 2022, the Company has an accumulated deficit of approximately \$4,399,000 and funded its operations through the sale of common stock and debt. We anticipate that our expenses will increase in the future to support our service offerings, clinical and pre-clinical research and development activities associated with strategic partnering and collaborations as we well as acquired product candidates and the increased costs of operating as a public company. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses. Additionally, we anticipate increased costs associated with being a public company including expenses related to services associated with maintaining compliance with exchange listing and Securities and Exchange Commission requirements, insurance, and investor relations costs.

The Company's current operations 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.

Through December 31, 2022, the Company received net proceeds of approximately \$1,016,000 from the sale of convertible promissory notes and warrants.

On February 16, 2023, the Company completed its initial public offering 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 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 Warrants") to purchase one share of the Company's common stock at an exercise price of \$8.125. The offering closed on February 16, 2023.

In connection with and prior to the consummation of the initial public offering, the Company effected a reverse split of its outstanding shares of common stock at a ratio of 1:7 - 1 share of new common stock for 7 shares of then outstanding common stock. Also in connection with the initial public offering, 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 common stock and 276,289 warrants to purchase common stock (post reverse stock split) were issued to the Convertible Bridge Note holders at conversion. The convertible bridge note conversions and the warrant exercise pricing was determined using a \$25 million dollar company valuation immediately before the initial public offering.

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

In the absence of revenues in 2023 management believes the company's capital resources are sufficient to fund planned operations for substantially longer than 12 months from the date of this filing.

#### **Critical Accounting Policies**

In Footnote 2 of our Audited Financial Statements for the year ended December 31, 2022 found elsewhere in this filing, we included a discussion of the most critical accounting policies used in the preparation of our financial statements. There has been no material change in the policies and estimates used in the preparation of our financial statements since the completion of the 2022 audit.

#### **Off-Balance Sheet Arrangements**

We do not have any off-balance sheet arrangements, as such term is defined in Item 303(a)(4) of Regulation S-K.

#### **Financial operations overview**

#### Revenue

We generated our first revenues in late 2022 from our services provided to a pharmaceutical customer. We have service contracts with two organizations and currently have multiple discussions underway and anticipate, although there can be no assurance, entering into additional service agreements and business relationships in 2023.

#### **Operating Expenses**

We classify our operating expenses into two categories: research and development and general and administrative. Prior to 2022, most of our activities were related to: technology evaluation, acquisition and validation, capital acquisition and business development activities in general, which we believe have readied the Company for contract services while exploring strategic partnering and asset acquisition. These activities and related expenditures have been recorded and reported as General and Administrative in our Financial Statements. In 2022, we licensed two drug development programs from universities and also entered into a new license with JHU-APL for new IP and other enhancements used with our bfLEAP<sup>TM</sup> platform. In 2022, we expended appropriately \$608,000 on license related payments for our bfLEAP<sup>TM</sup> AI/ML platform and our two drug development programs from universities. We expect that our research and development expenses will increase in 2023 as we initiate activities directed towards the development of service offering products, collaborations (JCVI) and preclinical IND enabling studies.

#### **Research and Development Costs and Expenses**

Research and development costs and expenses consist primarily of costs related to the acquisition of licensed technology and fees paid to external service providers. We anticipate our research and development costs could become significant as we execute on our business plan and begin conducting preclinical research and development activities directed at securing development partners and filing Investigational New Drug (IND) applications for our licensed drug development programs describes in this filing, as well as under strategic partnerships and for other drug development programs we may acquire. Research and development expenses are recorded in operating expenses in the period in which they are incurred. Estimates will be used in determining the expense liability of certain costs where services have been performed but not yet invoiced. We will monitor levels of performance under each significant contract for external services through communications with the service providers to reflect the actual amount expended.

#### **General and Administrative Expenses**

In anticipation of the initial public offering, a management team with deep industry experience was been identified and engaged as employees and consultants to assist the Company in preparing for the initial public offering and subsequently, to operate and function as a public company. Through 2021, the Company primarily operated with only one full time employee and a series of consultants. In 2022, three of the consultants became part time employees of the Company. During this period, the primary activities included: technology evaluation, acquisition and validation, capital acquisition and business development activities which in general, have readied the Company for contract services while exploring strategic partnering and asset acquisition as noted above. The Company's financial statements reflect an accumulated deficit of approximately \$4,400,000 as a result of these activities including the licensing costs for bfLEAPTM. In 2022, the Statement of Operation reflects approximately \$2,457,000 in operating expenses versus \$555,000 in the 2021 period. The increase reflects the Company's continued preparation for its IPO including legal and accounting costs related to the audit of the Company's financial statements including those presented in the Company's S-1 filed in connection with the Company's IPO in February 2023. The Company also engaged the management team noted above which resulted in increased consulting and stock-based compensation expenses in 2021 and 2022. The 2022 Consolidated Statement of Operations reflects Salaries of approximately \$548,000, Consulting and other professional fees of approximately \$644,000 and Stock based compensation of \$340,000. For the 2021 period, these amounts were approximately \$203,000, \$140,000 and \$99,000. We anticipate that our general and administrative expenses will increase in the future to support our service offerings, clinical and pre-clinical research and development activities associated with strategic partnering and collaborations as well as any newly acquired product candidates and the increased costs of operating as a public company. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses. Additionally, we anticipate increased costs associated with being a public company including expenses related to services associated with maintaining compliance with exchange listing and Securities and Exchange Commission requirements, insurance, and investor relations costs.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

#### ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

See "Index to Consolidated Financial Statements" which appears on page F-1 of this Annual Report on Form 10-K.

#### ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

## ITEM 9A. CONTROLS AND PROCEDURES

## **Disclosure Controls and Procedures**

We are transitioning to and will maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and timely reported as provided in SEC rules and forms and that such information is accumulated and communicated to our management, as appropriate, to allow for timely decisions regarding required disclosure. We will periodically review the design and effectiveness of our disclosure controls and procedures, including compliance with various laws and regulations that apply to our operations. We will make modifications to improve the design and effectiveness of our disclosure controls and procedures and may take other corrective action if our reviews identify a need for such modifications or actions. In designing and evaluating the disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and we will apply judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls 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; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a control system, misstatements due to error or fraud may occur and not be detected.

#### **Changes in Internal Control Over Financial Reporting**

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the fiscal year ended December 31, 2022 which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## Management's Report on Internal Control over Financial Reporting

This Annual Report does not include a report of management's assessment regarding internal control over financial reporting due to a transition period established by the rules of the SEC for newly public companies.

## Attestation Report of Independent Registered Public Accounting Firm

This Annual Report does not include an attestation report of our registered independent public accounting firm regarding internal control over financial reporting due to an exemption established by the JOBS Act for "emerging growth companies."

## **ITEM 9B. OTHER INFORMATION**

None.

## ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

#### PART III

## ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

## **Executive Officers and Directors**

The following table sets forth the name, age and position of each of our executive officers, key employees and directors.

Age	Position(s)
54	Chief Executive Officer and Director
65	Chief Financial Officer
69	Director and Chair Audit Committee
60	Director and Chair of Compensation Committee
54	Director and Chair of Nominating and Corporate Governance Committee
	54 65 69 60

Vininder (Vin) Singh is the Founder, Chairman, and CEO of BullFrog AI Holdings, Inc. since its inception in August 2017. Over the past five years, he has built the Company from scratch and during that time he led strategy, built a highly experienced team of leaders, spear headed the acquisition and development of BullFrog's core AI technology and drug assets, secured the first revenue, and raised approximately \$2M in financing. In February of 2020, he formed BullFrog AI Holdings, Inc. and BullFrog AI Inc. became a wholly owned subsidiary designated as the holder of core intellectual property. Vin is a serial entrepreneur and experienced executive with 25 years of experience in the life sciences and biotechnology industries. He has extensive start-up experience having founded and built several pioneering investor backed companies including BullFrog AI, which uses machine learning/AI to enable drug development, Next Healthcare Inc., a personalized diagnostics and adult cell banking service, and MaxCyte Inc. (MXCT), a cell therapy company. He was also an executive at GlobalStem Inc. and ThermoFisher Scientific, leading their global cell therapy services business. Vin has a BS in Electrical Engineering from Rutgers University, an MS in Biomedical Engineering from Rensselaer Polytechnic Institute, and an MBA from Johns Hopkins University. We believe that Mr. Singh is qualified to serve as a member of our board of directors due to the perspective and experience that he brings as our Founder and Chief Executive Officer, his extensive experience in the science and biotechnology industries and in the management of startup companies.

Dane Saglio joined BullFrog Holdings AI, Inc. as Chief Financial Officer in September 2021. Mr. Saglio brings more than 40 years of financial management experience in both public and private companies across a number of business sectors. Previously, Mr. Saglio has served as CFO at Seneca Biopharma, RegeneRx Biopharmaceuticals since 2011, New Generation Biofuels 2010 until 2011, and EntreMed from 2000 until 2008, all public companies in the biotechnology arena. Prior to joining the Company, Mr. Saglio was the CFO of Seneca Biopharma, initially as a consultant in August 2019 and then as an employee in April 2020 until the Company merged with Leading Bio Sciences, forming Palisades Bio, Inc. in April 2021. He previously served as CFO at Celios Corporation from October 2017 until July 2019 and Helomics Corporation, a personalized medicine company in cancer from October 2014 through July 2017. He began his career at Informatics Corp, now Computer Associates International and then at Bressler & Reiner, a DC-based real estate developer and homebuilder. Dane has a BS from the University of Maryland is a licensed CPA in Maryland (inactive).

#### Non-Executive Directors

**R. Don Elsey** has been a director and chair of the Audit Committee of our board since February 14, 2023. Currently, Mr. Elsey serves as an advisor to the CEO of Lyra Therapeutics, a private company pioneering a new therapeutic approach to treat debilitating ear, nose and throat diseases. Mr. Elsey was the CFO of Lyra until his retirement in December 2020. Previously, from February 2015 to February 2019, Mr. Elsey served as Chief Financial Officer at Senseonics, Inc., a medical device company. From May 2014 until February 2015, Mr. Elsey served as Chief Financial Officer of Regado Biosciences, Inc., a biopharmaceutical company. From December 2012 to February 2014, Mr. Elsey served as Chief Financial Officer of LifeCell Corporation, a privately held regenerative medicine company. Mr. Elsey holds a B.A. in economics and an M.B.A. in finance from Michigan State University. We believe that Mr. Elsey is qualified to serve as a member of our board of directors because of his extensive professional experience in science and biotechnology companies,

William "Bill" Enright has been a director and chair of the Compensation Committee of our board since February 14, 2023. He is a seasoned biotech executive with more than thirty years of experience in building and financing both privately held and publicly held companies and will join the board on the effective date of this registration statement. He is currently the CEO and a Director of Vaccitech plc (NASDAQ: VACC), which he helped to take public in April 2021. Prior to Vaccitech, Bill spent more than ten years at Altimmune (NASDAQ: ALT) as a Director, President & CEO, moving multiple programs into clinical testing, completing several acquisitions, and eventually taking the company public. Prior to joining Altimmune, Bill spent six years with GenVec, Inc. (acquired by Intrexon) with increasing responsibilities, culminating as Head of Business Development.

Bill brings a breadth of experiences in a variety of positions within the life science/biotech industry, including time as a consultant, a bench scientist and 12 years with Life Technologies, Inc. (acquired by Thermo-Fisher), working in various senior level licensing, business management, manufacturing and research roles.

In addition to Vaccitech, Bill sits on the Board of Gravitas Therapeutics, Inc. and on a Business Advisory Board for Creatv MicroTech, Inc., both privately held companies.

Bill received a Master of Arts in Molecular Biology from SUNY at Buffalo and a Master of Science in Business Management from Johns Hopkins University.

We believe that Mr. Enright is qualified to serve as a member of our board of directors because of his extensive professional experience in life science/biotech companies and in the management of public companies

Jason Hanson became a director and chair of the Nominating and Corporate Governance Committee on the February 14, 2023. He currently serves as President, Chief Executive Officer, and Director at enGene, Inc. ("enGene"), a position he has held since 2018. In this role, he has built "from the ground up" a new scientific, technical and strategic vision for enGene, a Montreal based gene therapy company with a ten plus year history, re-launched the company with new science, personnel and strategy within six months of joining the company. In addition, at enGene, Mr. Hanson continues to build on the new strategy by conceptualized a groundbreaking genetherapy product from ideation stage into a multi-billion dollar clinical stage asset, has assembled senior team experienced in R&D, oncology and gene therapy, and has successfully led efforts at FDA to expand BLA, clinical activities to first line NMIBC (Non-Muscle Invasive Bladder Cancer) effectively doubling addressable market from \$3B to \$6B Previously. Mr. Hanson served as President and Chief Executive Officer of Ohana Biosciences, a biotechnology company based in Cambridge, MA. Mr. Hanson previously served as Executive Vice President and Chief Strategy Officer for NuVasive, Inc. and as Corporate Vice President of General Electric Company and member of the senior executive team of GE Healthcare, a \$20-plus billion dollar global pharmaceutical, medical device and healthcare services business. At GE Healthcare he had global business responsibilities for a range of portfolio management, corporate development, legal, compliance, and government relations activities. Prior to joining GE Healthcare, Mr. Hanson served as company Group Chairman and Executive Vice President at Valeant Pharmaceuticals with responsibility for the company's Consumer, Ophthalmology, Latin American and Dental businesses, as well as the manufacturing and supply chain, R&D, regulatory and medical affairs teams. Previously, he served as Executive Vice President and Chief Operating Officer at Medicis Pharmaceutical Corporation, where he led R&D and other critical functions and helped build the pre-eminent pipeline of prescription dermatology and aesthetic medicine products prior to its acquisition by Valeant for \$2.6 billion. Mr. Hanson received a bachelor's degree from Cornell University and a law degree from Duke University School of Law. We believe that Mr. Hanson is qualified to serve as a member of our board of directors because of his extensive professional experience in life science/biotech companies.

#### **Family Relationships**

There are no family relationships between any director and executive officer.

## Role of Board of Directors in Risk Oversight Process

The board of directors has extensive involvement in the oversight of risk management related to us and our business and accomplishes this oversight through the regular reporting by the Audit Committee.

#### **Director Independence**

Messrs. Elsey, Enright and Hanson, three members of our Board of Directors, are independent using the definition of independence under Nasdaq Listing Rule 5605(a) (2) and the standards established by the SEC.

#### **Committees of the Board of Directors**

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors are described below. All directors hold office until the next annual meeting of the stockholders of the company and until their successors have been duly elected and qualified. Officers are elected by and serve at the discretion of our Board. Our board of directors may establish other committees as it deems necessary or appropriate from time to time.

#### Audit Committee

Our audit committee consists of Don Elsey, William Enright and Jason Hanson, with Mr. Elsey serving as chair. Our board of directors has affirmatively determined that each meets the definition of "independent director" under the rules of The Nasdaq Capital Market, and that they meet the independence standards under Rule 10A-3. Each member of our audit committee meets the financial literacy requirements of Nasdaq rules. Our board of directors has adopted a written charter for the audit committee, which can be found on our website at https://ir.bullfrogai.com/corporate-governance/governance-documents.

The audit committee is appointed by the board of directors to assist the board of directors in its duty to oversee the Company's accounting, financial reporting, and internal control functions and the audit of the Company's financial statements. The role of the audit committee is to oversee management in the performance of its responsibility for the integrity of the Company's accounting and financial reporting and its systems of internal controls, the performance and qualifications of the Company's independent auditor, including the independent auditor's independence, the performance of the Company's internal audit function; and the Company's compliance with legal and regulatory requirements.

#### **Compensation Committee**

Our compensation committee consists of William Enright, Don Elsey and Jason Hanson, with Mr. Enright serving as chair. Our board of directors has adopted a written charter for the compensation committee, which can be found on our website at https://ir.bullfrogai.com/corporate-governance/governance/documents.

The compensation committee is responsible for reviewing and recommending, among other things:

- the adequacy and form of compensation of the board;
- the compensation of Chief Executive Officer, including base salary, incentive bonus, stock option and other grant, award and benefits upon hiring and on an annual basis;
- the compensation of other senior management upon hiring and on an annual basis; and
- the Company's incentive compensation and other equity-based plans and recommending changes to such plans to our board of directors, when necessary.

#### Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Jason Hanson, William Enright and Don Elsey, with Mr. Hanson serving as chair. Our board of directors has adopted a written charter for the nominating and corporate governance committee, which can be found on our website at https://ir.bullfrogai.com/corporate-governance/governance/governance-documents.

The nominating committee is responsible for, among other things:

- developing criteria for membership on the board of directors and committees;
- identifying individuals qualified to become members of the board of directors;
- recommending persons to be nominated for election as directors and to each committee of the board of directors;
- annually reviewing our corporate governance guidelines; and
- monitoring and evaluating the performance of the board of directors and leading the board in an annual self-assessment of its practices and effectiveness.

#### **Code of Ethics**

We have adopted a Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, employees or persons performing similar functions. Our code of ethics can be found at https://ir.bullfrogai.com/corporate-governance/governance/documents.

#### **Involvement in Certain Legal Proceedings**

Our directors and executive officers have not been involved in any of the following events during the past ten years:

- 1. any bankruptcy petition filed by or against such person or any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;
- 2. any conviction in a criminal proceeding or being subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);
- being subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from or otherwise limiting his involvement in any type of business, securities or banking activities or to be associated with any person practicing in banking or securities activities;
- 4. being found by a court of competent jurisdiction in a civil action, the SEC or the Commodity Futures Trading Commission to have violated a Federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated;
- 5. being subject of, or a party to, any Federal or state judicial or administrative order, judgment decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of any Federal or state securities or commodities law or regulation, any law or regulation respecting financial institutions or insurance companies, or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- 6. being subject of or party to any sanction or order, not subsequently reversed, suspended, or vacated, of any self-regulatory organization, any registered entity or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

#### Section 16(a) Beneficial Ownership Compliance

Based solely upon a review of copies of such forms filed on Forms 3, 4 and 5, and amendments thereto furnished to us, we believe that as of the date of this Report, our executive officers, directors and greater than 10 percent beneficial owners have complied on a timely basis with all Section 16(a) filing requirements, except Messrs. Elsey, Enright and Hanson did not file Form 3s upon their appointment to the Board.

#### **Nomination Process**

As of December 31, 2022, we did not affect any material changes to the procedures by which stockholders may recommend nominees to the Board of Directors.

#### **ITEM 11. EXECUTIVE COMPENSATION**

Name and Principal Position	Year	Salary (\$)	Bon (\$		Stock Awards (\$)	Option Awards (\$)	l	on-Equity Incentive mpensation Plan (\$)	Nonqualified deferred compensation earnings (\$)	All other compensation (\$)	Con	Total npensation (\$)
Vininder Singh	2022	\$179,000	\$	-	\$ -	\$	\$	-			\$	179,000
Chief Executive Officer and												
Director	2021	\$116,000		-	-		-	-				116,000
Dane Saglio	2022	\$ 30,000	\$	-	\$ -	\$ .	- \$	-			\$	30,000
Chief Financial Officer	2021	-		-	17,600		-	-				17,600

#### **Employment Agreements**

On May 16, 2022, we entered into an employment agreement with Vininder Singh, pursuant to which he will receive received an annual base salary of \$400,000, which is subject to bi-annual review by the Company. Mr. Singh will also be eligible for an annual bonus based on the achievement of certain goals and performance criteria established by the Board. Mr. Singh's target annual bonus for the fiscal years ended 2022 through 2025 will be a minimum of twenty (20%) percent of the current base salary, with a maximum payout of up to one-hundred (100%) percent based on target achievement. For 2022, the criteria to determine Mr. Singh's bonus will include the following: (i) the Company achieves \$500,000 in sales; (ii) the filing of an Investigational New Drug (IND) Application with the FDA for mebandazole; (iii) the Company enters into two (2) strategic partnerships; and (iv) the Company commences partner negotiations with a third party for HSV-1, bf-114 or bf-222. Mr. Singh will also be eligible to participate in the Company's stock incentive plan, subject to Board approval. The agreement with Mr. Singh shall continue until either his resignation, termination for cause by the Company, or death or disability of Mr. Singh.

#### **Consulting Agreements**

We have also entered into a consulting agreement (the "Newman Agreement") with Gerald Newman pursuant to which Mr. Newman will assist the Company with general business consulting, strategic relationships and the recruiting of certain key personnel. The Newman Agreement will terminate on June 23, 2023 and may be renewed upon mutual written agreement by both parties. Pursuant to the Newman Agreement, Newman will receive a monthly fee of \$7,500 per month payable for eight months, which commenced on February 14, 2023, payable on the last day of each month.

Further, we have entered into an advisory agreement (the "Greentree Agreement") with Greentree Financial Group, Inc. ("Greentree") to render certain professional services to the Company including but not limited to responding to comments from the NASDAQ Listing Qualifications Staff as necessary, assisting the Company in preparing a Code of Conduct applicable to directors, officers and employees, and advising on all documents and accounting systems relating to its finances and transactions, with the purpose of bringing such documents and systems into compliance with Generally Accepted Accounting Principles or disclosures required by the SEC. Pursuant to the Greentree Agreement, Greentree received 350,000 shares of the Company's common stock.

#### **Director Compensation**

No compensation has been paid out to the directors during the fiscal year ended December 31, 2022.

#### **Equity Compensation Plans**

Our Board of Directors has adopted the 2022 Equity Incentive Plan, or 2022 Plan. Once our 2022 Plan became effective, no further grants were made under the Company's previous Incentive Plan.

#### Outstanding Equity Awards at Fiscal Year-End

There are no outstanding equity awards held by the Company's named executive officers or directors as of December 31, 2022.

## ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information regarding the beneficial ownership of our common stock as of April 14, 2023 by:

- each of our named executive officers;
- each of our directors;
- all of our current directors and named executive officers as a group; and
- each stockholder known by us to own beneficially more than 5% of our common stock.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Shares of common stock that may be acquired by an individual or group within 60 days of April 14, 2023, pursuant to the exercise of options or warrants, vesting of common stock or conversion of convertible debt, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage of ownership is based on 6,086,952 shares of common stock issued and outstanding as of April 14, 2023.

Except as otherwise indicated, all shares are owned directly. Unless otherwise indicated, the address of each of the persons shown is c/o Bullfrog AI Holdings, Inc., 325 Ellington Blvd., Unit 317, Gaithersburg, MD 20878.

Name of Beneficial Owner	Common Stock Beneficially Owned	Percentage of Common Stock
Directors and Officers:		
Vininder Singh Chief Executive Officer and Director	2,742,446	45.05%
Dane Saglio Chief Financial Officer(1)	82,142	1.34%
R. Don Elsey	-	-
William Enright	-	-
Jason Hanson	-	-
All officers and directors as a group (5 persons)	2,824,588	46.21%
Beneficial owners of more than 5%		
Tivoli Trust (2)	904,391	13.04%
TEDCO	205,984	3.38%
Johns Hopkins University Applied Physics Laboratory, LLC	218,450	3.49%

• Less than 1%

(1) Comprised of 57,142 shares, including 10,000 shares held by his children, of Common Stock and 25,000 Stock Options exercisable within 60 days.

(2) Comprised of 73,449 shares of non-voting Series A Preferred Stock, 115,185 warrants exercisable at \$2.50 per shares and 54,714 shares of Common Stock. Assumes the conversion of all Series A Preferred Stock into common stock in an amount equal to ten shares of common stock for each one share of Series A Preferred Stock.

#### Securities Authorized for Issuance under Equity Compensation Plans

*General.* In November 2022, our Board of Directors adopted our 2022 Equity Incentive Plan (the "2022 Plan") and the 2022 Plan was submitted to our stockholders for approval. Our 2022 Plan became effective immediately on adoption. Our 2022 Plan replaces our previous incentive plan. However, awards outstanding under our previous incentive plan will continue to be governed by their existing terms.

Share Reserve. The number of shares of our common stock available for issuance under our 2022 Plan is 900,000 shares. Notwithstanding the number of shares available for issuance, on the first day of each month commencing January 1, 2023, or the first business day of the calendar year if the first day of the calendar year falls on a Saturday or Sunday, the number of shares eligible for awards under the 2022 Plan will automatically increase in an amount equal to 15% of the total number of shares of common stock outstanding as of December 31st of the preceding fiscal year.

**Plan Category** 

Number of securities to be issued upon exercise of outstanding options, warrants and rights Weighted-average exercise price of outstanding options, warrants and rights Number of securities remaining available for future issuance under equity compensation

	(a)	(b)	plans (excluding securities reflected in column (a)
Equity compensation plans approved by security holders		\$	
Equity compensation plans not approved by security holders	69,217	\$ 3.06	\$
Total	69,217	\$ 3.06	\$
	28		

#### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Other than as set forth below and compensation arrangements, including employment, and indemnification arrangements, discussed, there have been no transactions since January 1, 2021, in which the amount involved in the transaction exceeded or will exceed the lesser of \$120,000 or one percent of the average of our total assets as at the year-end for the last two completed fiscal years, and to which any of our directors, executive officers or beneficial holders of more than 5% of our capital stock, or any immediate family member of, or person sharing the household with, any of these individuals, had or will have a direct or indirect material interest.

On July 8, 2021, the Company entered into a Simple Agreement for Future Equity (SAFE), with a related party, Tivoli Trust, our second largest shareholder (the "Investor"), with an amount of \$150,000, with 0% interest. Under the SAFE agreement, if there is an Equity Financing before the termination of this SAFE, on the initial closing of such Equity Financing, this SAFE will automatically convert into the number of shares of SAFE Preferred Stock equal to the Purchase Amount divided by the Conversion Price, which means either: (1) the Safe Price (the price per share equal to the Post-Money Valuation Cap divided by the Company Capitalization) or (2) the Discount Price (the price per share of the Standard Preferred Stock sold in the Equity Financing multiplied by the Discount Rate), whichever calculation results in a greater number of shares of Safe Preferred Stock.

If there is a Liquidity Event before the termination of this SAFE, this SAFE will automatically be entitled (subject to the liquidation priority set forth in Section 1(d) below) to receive a portion of Proceeds, due and payable to the Investor immediately prior to, or concurrent with, the consummation of such Liquidity Event, equal to the greater of (i) the Purchase Amount (the "Cash-Out Amount") or (ii) the amount payable on the number of shares of Common Stock equal to the Purchase Amount divided by the Liquidity Price (the "Conversion Amount"). If any of the Company's securityholders are given a choice as to the form and amount of Proceeds to be received in a Liquidity Event, the Investor will be given the same choice, provided that the Investor may not choose to receive a form of consideration that the Investor would be ineligible to receive as a result of the Investor's failure to satisfy any requirement or limitation generally applicable to the Company's securityholders, or under any applicable laws.

This SAFE will automatically terminate (without relieving the Company of any obligations arising from a prior breach of or non-compliance with this SAFE) immediately following the earliest to occur of: (i) the issuance of Capital Stock to the Investor pursuant to the automatic conversion of this SAFE under agreement; or (ii) the payment, or setting aside for payment, of amounts due the Investor pursuant to the agreement.

As of December 31, 2021, the \$150,000 received from SAFE was recorded at 6% imputed interest. The maturity date of the loan is defined by the SAFE agreement as discussed above. The SAFE was converted into 32,967 shares of common stock (post reverse stock split) upon the Company's IPO in February 2023.

On August 19, 2021, the company entered into a convertible loan agreement with a related party, with a principal balance of \$99,900 at 9% interest. The noteholder has the right to convert the principal and interest into common shares of the Company. This loan included an original issuance discount of 5% and included 99,900 Warrants at an exercise price of \$1, exercisable for 5 years from the issue date on the face of the Warrant. The maturity date of the loan was February 19, 2022. In May 2022, the Company and the note holder agreed to cancel and void previous warrants and entered into a new agreement for 115,185 warrants with an exercise price of \$2.50. As of December 31, 2022, the \$99,900 principal and the \$4,950 overpayment of the note remained outstanding and had accrued interest of \$12,462.53. The warrants discussed above were initially discounted against the notes, subsequent to year end December 31, 2021, they were deemed voided and new warrants in accordance with the new terms were issued. We assessed the differences in fair value and determined that they were de minimis and expensed the full value of the new warrants. The noteholder elected to convert the loan into 21,747 shares of common stock (post reverse stock split) upon the Company's IPO in February 2023.

On June 15, 2021, the company entered into a unsecured short term loan agreement with the Investor for an aggregate principal balance of \$34,000, with a one-year maturity date, accruing interest at 5% and imputing an additional 1% interest.

On November 19, 2021, 2021, the company entered into an unsecured short term loan agreement with the Investor for an aggregate principal balance of \$5,000, with a one-year maturity date, accruing interest at 5% and imputing an additional 1% interest.

On December 13, 2021, the company entered into an unsecured short term loan agreement with the Investor for an aggregate principal balance of \$10,000, with a oneyear maturity date, accruing interest at 5% and imputing an additional 1% interest.

On October 5, 2022, the Company entered into an exchange agreement with the Investor whereby all of his common stock, 734,493 shares of common stock (post reverse split shares), were exchanged into 73,449 shares of Series A Convertible Preferred Stock that converts to common at a rate of 10 common for one preferred. 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. For a description of the rights and preferences of the Series A Preferred Stock, see "Description of Securities- Series A Convertible Preferred Stock".

#### **Other Transactions**

None.

### **Director Independence**

Messrs. Elsey, Enright and Hanson, three members of our Board of Directors, are independent using the definition of independence under Nasdaq Listing Rule 5605(a) (2) and the standards established by the SEC.

#### **Policies and Procedures for Related Party Transactions**

For purposes of our policy only, a related person transaction is a transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and any related person are, were or will be participants in which the amount involved exceeds the lesser of \$120,000 or 1% of the average of our total assets at year-end. Transactions involving compensation for services provided to us as an employee or director are not covered by this policy. A related person is any executive officer, director or beneficial owner of more than 5% of any class of our voting securities, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, if a transaction has been identified as a related person transaction, including any transaction that was not a related person transaction when originally consummated or any transaction that was not initially identified as a related person transaction prior to consummation, our management must present information regarding the related person transaction to our audit committee, or, if audit committee approval would be inappropriate, to another independent body of our Board of Directors, for review, consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits to us of the transaction and whether the transaction is on terms that are comparable to the terms available to or from, as the case may be, an unrelated third party or to or from employees generally. Under the policy, we will collect information that we deem reasonably necessary from each director, executive officer and, to the extent feasible, significant stockholder to enable us to identify any existing or potential related-person transactions and to effectuate the terms of the policy. In addition, under our code of business conduct and ethics, our employees and directors will have an affirmative responsibility to disclose any transaction or relationship that reasonably could be expected to give rise to a conflict of interest. In considering related person transactions, our audit committee, or other independent body of our Board of Directors, will take into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director's independence in the event that the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

The policy requires that, in determining whether to approve, ratify or reject a related person transaction, our audit committee, or other independent body of our Board of Directors, must consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our stockholders, as our audit committee, or other independent body of our Board of Directors, determines in the good faith exercise of its discretion.



#### Item 14. Principal Accounting Fees and Services

The following table summarizes the fees billed by M&K CPAs for the fiscal years ended December 31, 2022 and 2021, inclusive of out-of-pocket expenses.

#### **Pre-Approval Policy**

Our audit committee was formed upon the consummation of our initial public offering. As a result, the audit committee did not pre-approve all of the foregoing services, although any services rendered prior to the formation of our audit committee were approved by our board of directors. Since the formation of our audit committee, and on a going-forward basis, the audit committee has and will pre-approve all auditing services and permitted non-audit services to be performed for us by our auditors, including the fees and terms thereof (subject to the de minimis exceptions for non-audit services described in the Exchange Act which are approved by the audit committee prior to the completion of the audit).

	Year Ended December 31,			
Fee Category	 2022		2021	
Audit fees <sup>(1)</sup>	\$ 52,450	\$	10,000	
Audit-related fees <sup>(2)</sup>	12,150		-	
Tax fees <sup>(3)</sup>	-		-	
All other $fees^{(4)}$	-		-	
Total fees	\$ 64,690	\$	10,000	

(1) Audit fees consist of fees for professional services rendered in connection with the annual audit of our consolidated financial statements, the review of our quarterly condensed consolidated financial statements and consultations on accounting matters directly related to the audit.

(2) Audit-related fees consist of fees for professional services rendered in connection with the submission of our Registration Statement on Form S-1 in connection with our initial public offering.

(3) Tax fees consist of fees for professional services for tax compliance, tax advice and tax planning.

(4) All other fees consist of fees related to engagement administration.

#### PART IV

#### Item 15. Exhibits, Financial Statement Schedules

#### a) Financial Statements

For a list of the consolidated financial statements included herein, see Index to Consolidated Financial Statements on page F-1 of this Annual Report, which is incorporated into this Item by reference.

#### b) Exhibits

Exhibit No.	Description
1.1	Underwriting Agreement between the Company and WallachBeth Capital LLC dated February 14, 2023, incorporated by reference to Exhibit 1.1 of the Current
	Report on Form 8-K filed with the Securities and Exchange Commission on February 21, 2023.
3.1	Amended and Restated Articles of Incorporation of Bullfrog AI Holdings, Inc. incorporated by reference to Exhibit 3.1 to the Company's Amendment to the
	Registration Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
3.2	Bylaws of Bullfrog AI Holdings, Inc. incorporated by reference to Exhibit 3.2 to the Company's Amendment to the Registration Statement on Form S-1 (No.
	333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.1	Acquisition Agreement with Bullfrog AI, Inc. incorporated by reference to Exhibit 10.1 to the Company's Amendment to the Registration Statement on Form S-
	1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.2	Advisor Agreement between the Company and Greentree Financial Group, Inc. incorporated by reference to Exhibit 10.2 to the Company's Amendment to the
	Registration Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.3	Consulting Agreement between the Company and Garrett Newman incorporated by reference to Exhibit 10.3 to the Company's Amendment to the Registration
	Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.4	Employment Agreement with Vininder Singh incorporated by reference to Exhibit 10.4 to the Company's Amendment to the Registration Statement on Form S-
	1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.5	Patent License Agreement between the Company and George Washington University, dated January 14, 2022 incorporated by reference to Exhibit 10.6 to the
	Company's Amendment to the Registration Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.6	Exclusive License Agreement between the Company and Johns Hopkins University, dated February 22, 2022 incorporated by reference to Exhibit 10.7 to the
	Company's Amendment to the Registration Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.7	License Agreement between the Company and Johns Hopkins Applied Physics Laboratory LLC, dated July 8, 2022 incorporated by reference to Exhibit 10.8 to
	the Company's Amendment to the Registration Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13,
	2023.
10.8	License Agreement between the Company and Johns Hopkins Applied Physics Laboratory LLC, dated February 7, 2018 incorporated by reference to Exhibit
	10.5 to the Company's Amendment to the Registration Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on
	<u>February 13, 2023.</u>
10.9	License Agreement between the Company and Johns Hopkins University (JHU) and the Institute of Organic Chemistry and Biochemistry (IOCB) of the Czech
	Academy of Sciences, dated October 13, 2022 incorporated by reference to Exhibit 10.9 to the Company's Amendment to the Registration Statement on Form S-
10.10	1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
10.10 •	2022 Equity Compensation Plan
21.1	List of significant subsidiaries of Bullfrog AI Holdings, Inc., incorporated by reference to Exhibit 21.1 to the Company's Amendment to the Registration
22.1	Statement on Form S-1 (No. 333-267951) filed with the Securities and Exchange Commission on February 13, 2023.
23.1	Consent of M&K CPAS PLLC, an independent registered public accounting firm
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act, as amended.
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act, as amended.
32.1	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Rules 13a-14(b) or 15d-14(b) of the Securities Exchange Act, as amended, and 18 U.S.C. Section 1350.
101 INS	Inline XBRL Instance Document

#### 101.INS Inline XBRL Instance Document

101.SCH Inline XBRL Taxonomy Extension Schema Document

- 101.CAL Inline XBRL Taxonomy Extension Calculation Document
- Inline XBRL Taxonomy Extension Definition Linkbase Document Inline XBRL Taxonomy Extension Label Linkbase Document 101.DEF
- 101.LAB
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document
- 104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

٠ Filed herewith.

# ITEM 16. FORM 10-K SUMMARY

None.

### 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.

April 25, 2023

# Bullfrog AI Holdings, Inc.

By: /s/ Vininder Singh

Vininder Singh Chief Executive Officer and Director (Principal Executive Officer)

By: /s/ Dane Saglio

Dane Saglio

Chief Financial Officer (Principal Financial and Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
By: /s/ Vininder Singh Vininder Singh	Chief Executive Officer and Chairman (Principal Executive Officer)	April 25, 2023
By: /s/ Dane Saglio Dane Saglio	Chief Financial Officer (Principal Financial and Accounting Officer)	April 25, 2023
By: /s/ Don Elsey R. Don Elsey	Director	April 25, 2023
By: /s/ William Enright William Enright	Director	April 25, 2023
By: /s/ Jason Hanson Jason Hanson	Director	April 25, 2023
	32	

# BULLFROG AI HOLDINGS, INC. INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm (PCAOB ID:2738	F-2
Consolidated Balance Sheets as of December 31, 2022 and 2021	F-3
Consolidated Statements of Operations for the Years Ended December 31, 2022 and 2021	F-4
Consolidated Statements of Changes in Stockholders' Deficiency for the Years Ended December 31, 2022 and 2021	F-5
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#### BULLFROG AI HOLDINGS, INC. AUDITED FINANCIAL STATEMENTS 2022 and 2021

### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Bullfrog AI Holdings, Inc.

#### **Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Bullfrog AI Holdings, Inc. (the Company) as of December 31, 2022 and 2021, and the related consolidated statements of operations, changes in stockholders' deficit, and cash flows for the years ended December 31, 2022 and 2021, and the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021 and the results of its operations and its cash flows for the two-year period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

#### **Basis for Opinion**

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

#### **Critical Audit Matter**

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which they relate.

As discussed in Note 2, the Company had a going concern disclosure in the previous year due to continued net losses from operations and negative cash flows in operations. Auditing management's evaluation of a going concern can be a significant judgment given the fact that the Company uses management estimates on future revenues and expenses, which are difficult to substantiate.

We evaluated the appropriateness of the removal of the going concern, we examined and evaluated the financial information along with management's plans to mitigate the going concern and management's disclosure on going concern.

/s/ M&K CPAS, PLLC

We have served as the Company's auditor since 2021. Houston, Texas April 25, 2023

# BULLFROG AI HOLDINGS, INC. CONSOLIDATED BALANCE SHEETS

	D	ecember 31 2022	D	December 31 2021		
100070		(Audited)		(Audited)		
ASSETS						
CURRENT ASSETS:						
Cash	\$	57,670	\$	10,014		
Prepaid expense		15,000		-		
Total Current Assets	\$	72,670	\$	10,014		
NON-CURRENT ASSETS:						
Property and Equipment, net		7,699		_		
Total Non-Current Assets	\$	7,699		-		
TOTAL ASSETS	¢	00.260	ф.	10.014		
IOTAL ASSETS	\$	80,369	\$	10,014		
LIABILITIES AND STOCKHOLDERS' DEFICIT						
CURRENT LIABILITIES:						
Accounts payable	\$	543,993	\$	68,594		
Accrued expenses		416,072		68,557		
Accrued expenses-related party		566,916		285,666		
Deferred revenue		32,000		10,000		
Notes payable-related party		-		49,000		
Convertible notes, net of \$0 and \$12,962 debt discount, respectively		1,323,890		284,038		
Convertible notes-related party, net of \$0 and \$1,584 debt discount, respectively		254,850		253,266		
Total Current Liabilities	\$	3,137,721	\$	1,019,121		
TOTAL LIABILITIES	\$	2 127 721	\$	1,019,121		
TO TAL LIADILITIES	\$	3,137,721	\$	1,019,121		
STOCKHOLDERS' DEFICIT:						
Series A Preferred stock, \$0.00001 par value, 5,500,000 shares authorized; 73,449 and 0 shares are						
issued and outstanding, respectively,		1		-		
Common stock, \$0.00001 par value, 100,000,000 shares authorized; 4,021,935 and 4,622,789 shares						
are issued and outstanding as of December 31, 2022 and 2021, respectively		40		46		
Additional paid-in capital		1,341,662		587,415		
Accumulated deficit		(4,399,055)		(1,596,568)		
Total BullFrog stockholders' deficit	\$	(3,057,352)	\$	(1,009,107)		
TOTAL STOCKHOLDERS' DEFICIT		(3,057,352)		(1,009,107)		
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	¢	80,369	¢			
TO TAL LIADILITIES AND STOCKHOLDERS DEFICIT	\$	80,369	\$	10,014		

The accompanying notes are an integral part of these financial statements

# BULLFROG AI HOLDINGS, INC. CONSOLIDATED STATEMENTS OF OPERATIONS

		For Years Ended December 31				
		2022		2021		
NET REVENUES:						
Revenues, net	\$	10,000	\$	-		
TOTAL NET REVENUES	\$	10,000		-		
COST OF GOODS SOLD:						
Cost of goods sold		800		-		
TOTAL COST OF GOODS SOLD		800		-		
GROSS PROFIT		9,200		-		
OPERATING EXPENSES:						
Research and development expenses		609,270		25,000		
General and administrative expenses		1,307,882		327,329		
Payroll and salary		98,250		-		
Payroll and salary-related party		449,599		203,033		
TOTAL OPERATING EXPENSES		2,465,001		555,362		
(LOSS) FROM OPERATIONS		(2,455,801)		(555,362)		
OTHER INCOME (EXPENSE):						
Interest expense		(347,145)		(40,395)		
Other Income		459		9,917		
TOTAL OTHER (EXPENSE)		(346,686)		(30,478)		
NET (LOSS)		(2,802,487)		(585,840)		
NET (LOSS) PER COMMON SHARE:						
Basic and diluted	<u>\$</u>	(0.70)	\$	(014)		
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING:						
Basic and diluted		4,009,852		4,116,336		

The accompanying notes are an integral part of these financial statements

# BULLFROG AI HOLDINGS, INC. CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' (DEFICIENCY) EQUITY FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	Series A l sto	Preferr ock	ed	Commo	1 Stoc	k	Additional Paid in	Subsc	ription	Accumulated	
	Shares	Am	ount	Shares	An	iount	Capital	Recei	vables	Deficit	Total
Balances, December 31, 2020	-	\$	-	3,603,422	\$	36	\$ 470,274	\$	(100)	\$ (1,010,728)	\$ (540,518)
Cash from subscription receivables	-		-	-		-	-		100	-	100
Warrants issued with convertible notes	-		-	-		-	13,661		-	-	13,661
Imputed Interest	-		-	-		-	4,539		-	-	4,539
Equity compensation	-		-	-		-	9,385		-	-	9,385
Equity compensation	-		-	1,019,367		10	89,556		-	-	89,566
Net (Loss)			-			-			-	(585,840)	(585,840)
Balances, December 31, 2021	-	\$	-	4,622,789	\$	46	\$ 587,415		-	\$ (1,596,568)	\$(1,009,107)
Imputed Interest	-		-	-		-	9,221		-	-	9,221
Equity compensation	-		-	-		-	340,152		-	-	340,152
Conversion of convertible notes	-		-	205,984		2	226,136		-	-	226,138
Reclassification of warrant	-		-	-		-	(11,097)		-	-	(11,097)
Shares cancellation	-		-	(112,225)		(1)	1		-	-	-
Shares issuance for license	-		-	39,879		-	189,828		-	-	189,828
Common stocks converted to Series A Preferred stock	73,449		1	(734,492)		(7)	6		-	-	-
Net (Loss)			_			_			-	(2,802,487)	(2,802,487)
Balances, December 31, 2022	73,449		1	4,021,935	\$	40	1,341,662	\$	-	\$ (4,399,055)	\$(3,057,352)

The accompanying notes are an integral part of these financial statements

# BULLFROG AI HOLDINGS, INC. CONSOLIDATED STATEMENTS OF CASH FLOW

	For The Years Ended December 31			
	 2022		2021	
CASH FLOWS FROM OPERATING ACTIVITIES:				
Net (loss)	\$ (2,802,487)	\$	(585,840)	
Adjustment to reconcile change in net (loss) to net cash and cash equivalents used in operating	())	•	(	
activities:				
Gain on debt forgiveness	-		(9,917)	
Depreciation expense	1,045		-	
Shares issuance for license	189,828		-	
Stock-based compensation	340,152		98,951	
Amortization of debt discount	214,429		12,665	
Imputed Interest	9,221		4,539	
Changes in operating assets and liabilities:				
Prepaid Expense	(15,000)		-	
Accounts payable	475,399		(25,853)	
Accrued expenses	373,273		27,384	
Accrued expenses-related party	281,250		85,666	
Deferred revenue	 22,000		10,000	
NET CASH USED IN OPERATING ACTIVITIES	(910,890)		(382,405)	
CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchase of Property and Equipment	(8,744)		-	
NET CASH FROM INVESTING ACTIVITIES	(8,744)			
NET CASH FROM INVESTING ACTIVITIES	 (8,744)		-	
CASH FLOWS FROM FINANCING ACTIVITIES:				
Proceeds from convertible notes payables	1,016,290		-	
Proceeds from convertible notes payables-related party	-		298,900	
Repayment of note payable and interest-related party	(49,000)		-	
Proceeds from notes payables - related party	-		88,400	
Proceeds from subscription payable	-		100	
NET CASH FROM FINANCING ACTIVITIES	 967,290		387,400	
Net increase/(decrease) in cash and cash equivalents	47,656		4,995	
	,		.,	
Cash, beginning of year	 10,014		5,019	
Cash, end of period	\$ 57,670	\$	10,014	
SUPPLEMENTAL CASH FLOW INFORMATION:				
Cash paid for interest	\$ 5,757	\$	_	
Cash paid for taxes	 5,151		-	
	\$ <u> </u>	\$		
SUPPLEMENTAL DISCLOSURE of NON-CASH ACTIVITY:				
Reclassification of warrant	\$ 11,097	\$	-	
Conversion of Convertible Note payable	\$ 226,138	\$	-	
Cancellation of common stocks	\$ 8	\$		
Shares issued for license	\$ 189,828	\$		
Shares issued for services	 		-	
	\$ 340,152	\$	20	
Warrants issued with convertible notes	\$ -	\$	13,661	

The accompanying notes are an integral part of these financial statements

#### BULLFROG AI HOLDINGS, INC. NOTES TO FINANCIAL STATEMENTS December 31, 2022 and 2021

# NOTE 1 - ORGANIZATION AND NATURE OF BUSINESS

Bullfrog AI Holdings, Inc. was incorporated in the State of Nevada on February 6, 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 on February 6, 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 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. This is the primary driver of 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 platform technology, named, bfLEAP<sup>TM</sup> 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 bfLEAP<sup>TM</sup> 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 bfLEAP<sup>TM</sup> platform utilizes both supervised and unsupervised machine learning – as such, it is able to reveal real/meaningful connections in the data without the need for an a priori hypothesis. Algorithms used in the bfLEAP<sup>TM</sup> platform are designed to handle highly imbalanced data sets to successfully identify combinations of factors that are associated with outcomes of interest.

Our primary goal is to improve the odds of success at any stage of pre-clinical and clinical therapeutics development, for in house programs, and our strategic partners and collaborators. Our primary business model is enabling the success of ongoing clinical trials or rescue of late stage failed drugs (i.e., Phase 2 or Phase 3 clinical trial failures) for development and divestiture; although, we will also consider collaborations for earlier stage drugs. We hope to accomplish this through strategic acquisitions of current clinical stage and failed drugs for in-house development, or through strategic partnerships with biopharmaceutical industry companies. We are able to pursue our drug asset enhancement business by leveraging a powerful and proven AI/ML platform (trade name: bfLEAP<sup>TM</sup>) initially developed at JHU-APL. We believe the bfLEAP<sup>TM</sup> 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.

# NOTE 2-SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Estimates include, but are not limited to, revenue recognition, allowances for doubtful accounts, recoverability of deferred tax assets and certain other of our accrued liabilities. Actual results could differ from those estimates.

### Financial Instruments

The carrying value of short-term instruments, including cash and cash equivalents, accounts payable and accrued expenses approximate fair value due to the relatively short period to maturity for these instruments.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value maximize the use of observable inputs and minimize the use of unobservable inputs. The Company utilizes a three-level valuation hierarchy for disclosures of fair value measurements, defined as follows:

Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the assets or liability, either directly or indirectly, for substantially the full term of the financial instruments.

Level 3 - inputs to the valuation methodology are unobservable and significant to the fair value.

The Company does not have any assets or liabilities that are required to be measured and recorded at fair value on a recurring basis.

### Revenue Recognition

For annual reporting periods after December 15, 2017, the Financial Accounting Standards Board ("FASB") made effective ASU 2014-09 "Revenue from Contracts with Customers," to supersede previous revenue recognition guidance under current U.S. GAAP. Revenue is now recognized in accordance with FASB ASC Topic 606, Revenue Recognition. The objective of the guidance is to establish the principles that an entity shall apply to report useful information to users of financial statements about the nature, amount, timing, and uncertainty of revenue and cash flows arising from a contract with a customer. The core principle is to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Two options were made available for implementation of the standard: the full retrospective approach or modified retrospective approach. The guidance became effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period, with early adoption permitted. We have adopted FASB ASC Topic 606 for our reporting period as of the year-ended December 31, 2019. As of December 31, 2021, we have had no revenue. In Q4 2022 the Company recognized its first service revenues in the amount of \$10,000 related to the achievement of a contract milestone under a contract with a Pharmaceutical company. In compliance with the agreement, we have met the following milestomes – receipt of data for analysis; data conversion and staging for ingestion. For the years-ended December 31, 2022 and 2021, our balance sheet reflects customer down payment received in early 2022 and late 2021 as unearned revenue in the amount of \$32,000 and \$10,000, respectively. This unearned revenue represents payments received from a leading rare disease non-profit organization under a contract with a single deliverable. As is more fully discussed below, we are of the opinion

Revenue is recognized 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 and 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 and 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 revenues to be recognized in the near future will result from our fee for service partnership offering, designed for biopharmaceutical companies, as well as 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 called bfLEAP<sup>TM</sup>. This platform is designed to predict targets of interest, patterns, relationships, and anomalies. 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.

#### Collaborative Arrangements

The Company also intends to enter collaborative arrangements with pharmaceutical companies who have drugs that have failed late Phase 2 or Phase 3 trials. These arrangements could take several forms including true partnerships where BullFrog contributes data analysis using the bfLEAP<sup>TM</sup> platform with the partner contributing the drug candidate and other resources needed to continue development towards commercialization with BullFrog receiving an equity or royalty right in the commercialized product. In other arrangements the Company may earn cash payments based on achieving certain milestones as determined under each specific arrangement.

#### Acquisition of Rights to Certain Drugs

In certain circumstances, we may also acquire rights to drugs that are in early-stage clinical trials, use our technology to sponsor and support a successful later stage precision medicine trial, and divest the asset. The same process may apply to the discovery of new drugs. In these instances, divestiture may be in the form of an outright sale of all rights or possibly a license to develop and commercialize enhanced development candidates. License agreements could include developmental and commercial milestones in addition to royalties.

# Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates include the fair value of the Company's stock, stock-based compensation, fair values relating to derivative liabilities, debt discounts and the valuation allowance related to deferred tax assets. Actual results may differ from these estimates.

#### Cash

The Company considers cash to consist of cash on hand and temporary investments having an original maturity of 90 days or less that are readily convertible into cash. As of December 31, 2022 and 2021, cash balances were \$57,670 and \$10,014, respectively.

### Concentrations of Credit Risk

The Company's financial instruments that are exposed to a concentration of credit risk are cash and accounts receivable. Occasionally, the Company's cash in interest-bearing accounts may exceed FDIC insurance limits. The financial stability of these institutions is periodically reviewed by senior management.



# Accounts Receivable

Trade receivables are carried at their estimated collectible amounts. Trade credit is generally extended on a short-term basis. Thus, trade receivables do not bear interest. Trade accounts receivable are periodically evaluated for collectability based on past credit history with customers and their current financial condition.

### Allowance for Doubtful Accounts

Any charges to the allowance for doubtful accounts on accounts receivable are charged to operations in amounts sufficient to maintain the allowance for uncollectible accounts at a level management believes is adequate to cover any probable losses. Management determines the adequacy of the allowance based on historical write-off percentages and the current status of accounts receivable. Accounts receivables are charged off against the allowance when collectability is determined to be permanently impaired. As of December 31, 2022 and 2021, allowance for doubtful accounts was \$0.

#### Inventories

The Company does not have inventory and does not plan to have inventory in the near future.

#### Cost of Sales

Cost of sales is comprised of royalties and the cost of outsourced services provided to the Company related to customer service contracts. We recognized \$800 as cost of goods sold which represents the 8% royalty on the \$10,000 in service revenue in 2022.

# Property and Equipment

Property and equipment are stated at cost. When retired or otherwise disposed, the related carrying value and accumulated depreciation are removed from the respective accounts and the net difference less any amount realized from disposition, is reflected in earnings. For financial statement purposes, property and equipment are recorded at cost and depreciated using the straight-line method over their estimated useful lives.

#### Advertising

The Company follows the policy of charging the costs of advertising to expense as incurred.

#### Income Taxes

Deferred income tax assets and liabilities are determined based on the estimated future tax effects of net operating loss and credit carry forwards and temporary differences between the tax basis of assets and liabilities and their respective financial reporting amounts measured at the current enacted tax rates. The Company records an estimated valuation allowance on its deferred income tax assets if it is not more likely than not that these deferred income tax assets will be realized.

The Company recognizes a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the condensed consolidated financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. As of December 31, 2022 and 2021, the Company has not recorded any unrecognized tax benefits.

#### Stock-Based Compensation

Employee and non-employee share-based compensation is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the requisite service period.

#### Net Loss per Share

We compute net loss per share in accordance with ASC 260, Earning per Share. We report both basic and diluted loss per share. Loss earnings per share is calculated based on the weighted average number of shares of common stock outstanding and excludes the dilutive effect of warrants, stock options or any other type of convertible securities. Considering that the Common shares of the Company were not publicly traded as of December 31, 2022, the contingently convertible notes and related dilutive shares are not included in the dilutive shares calculation upon the Initial Public Offering (IPO). Diluted loss per share is calculated based on the weighted average number of shares of common stock outstanding and the dilutive effect of stock options, warrants and other types of convertible securities are included in the calculation. Dilutive securities are excluded from the diluted earnings per share calculation because their effect is anti-dilutive. As of December 31, 2021 and December 31, 2022, 927,373 and 753,174 warrants (post reverse stock split) were not included in the calculation of net loss per share, respectively. In addition, 486,571 and 56,242 options for common shares (post reverse stock split) were not included in the calculation of net loss per share, respectively.

### Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). This ASU requires lessees to recognize a lease liability, on a discounted basis, and a right-of-use asset for substantially all leases, as well as additional disclosures regarding leasing arrangements. In July 2018, the FASB issued ASU 2018-11, Leases (Topic 842), which provides an optional transition method of applying the new lease standard. Topic 842 can be applied using either a modified retrospective approach at the beginning of the earliest period presented, or as permitted by ASU 2018-11, at the beginning of the period in which it is adopted.

We adopted this standard using a modified retrospective approach since inception of the company. The modified retrospective approach includes a number of optional practical expedients relating to the identification and classification of leases that commenced as of the inception of the company; initial direct costs for leases that commenced as of inception of the company; and the ability to use hindsight in evaluating lessee options to extend or terminate a lease or to purchase the underlying asset.

The Company elected the package of practical expedients permitted under ASC 842 allowing it to account for its prior operating lease that commenced before the adoption date as an operating lease under the new guidance without reassessing (i) whether the contract contains a lease; (ii) the classification of the lease; or (iii) the accounting for indirect costs as defined in ASC 842.

All staff are working remotely; therefore, the Company does not currently have a lease or rent office space.

Consistent with ASC 842-20-50-4, the Company's financial statements for the years ended December 31, 2022 and 2021, do not have a monthly rent obligation. The Company had no cash flows arising from a lease, no finance lease cost, short term lease cost, or variable lease costs. The Company does not produce any sublease income or any net gain or loss recognized from sale and leaseback transactions. As a result, the Company did not need to segregate amounts between finance and operating leases for cash paid for amounts included in the measurement of lease liabilities, segregated between operating and financing cash flows; supplemental non-cash information on lease liabilities arising from obtaining right-of-use assets; weighted-average calculations for the remaining lease term; or the weighted-average discount rate.

The adoption of this guidance resulted in no significant impact to the Company's results of operations or cash flows.

In December 2019, the FASB issued ASU No. 2019-12 - Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"). ASU 2019-12 is part of the FASB's overall simplification initiative and seeks to simplify the accounting for income taxes by updating certain guidance and removing certain exceptions. The updated guidance is effective for fiscal years beginning after December 15, 2020 and interim periods within those fiscal years. Early adoption is permitted. The adoption of this update did not have a material effect on the Company's financial statements.

In August 2020, the FASB issued ASU 2020-06, Debt - Debt with Conversion and Other Options (Subtopic 470- 20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity ("ASU 2020-06"), which simplifies the accounting for certain financial instruments with characteristics of liabilities and equity. This ASU (1) simplifies the accounting for convertible debt instruments and conversion features and cash conversion features in equity, separately from the host convertible debt or preferred stock; (2) revises the scope exception from derivative accounting in ASC 815-40 for freestanding financial instruments and embedded features that are both indexed to the issuer's own stock and classified in stockholders' equity, by removing certain criteria required for equity classification; and (3) revises the guidance in ASC 260, Earnings Per Share, to require entities to calculate diluted earnings per share (EPS) for convertible instruments by using the if-converted method. In addition, entities must presume share settlement for purposes of calculating diluted EPS when an instrument may be settled in cash or shares. For SEC filers, excluding smaller reporting companies, ASU 2020-06 is effective for fiscal years beginning after December 15, 2021. Including interim periods within those fiscal years. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020. For all other entities, ASU 2020-06 is effective for fiscal years. Entities should adopt the guidance in an interim reporting period. The Company elected early adoption, effective January 1, 2021. Considering that the Common shares of the Company were not publicly traded as of December 31, 2022, the convertible options are not considered to be readily convertible to cash. In addition, the beneficial conversion feature was eliminated under ASU 2020-06. Therefore, no derivative liabilities will be triggered from these convertible notes.

In October 2020, the FASB issued ASU 2020-10, Codification Improvements, which updates various codification topics by clarifying or improving disclosure requirements to align with the SEC's regulations. The Company adopted ASU 2020-10 as of the reporting period beginning January 1, 2021. The adoption of this update did not have a material effect on the Company's financial statements.

The Company does not believe that any other recently issued effective pronouncements, or pronouncements issued but not yet effective, if adopted, would have a material effect on the accompanying financial statements.

### COVID-19

In March 2020, the World Health Organization declared the global emergence of the COVID-19 pandemic. The impact of COVID-19 on the Company's business is currently unknown. The Company will continue to monitor guidance and orders issued by federal, state, and local authorities with respect to COVID-19. As a result, the Company may take actions that alter its business operations as may be required by such guidance and orders or take other steps that the Company determines are in the best interest of its employees, customers, partners, suppliers and stockholders.

Any such alterations or modifications could cause substantial interruption to the Company's business and could have a material adverse effect on the Company's business, operating results, financial condition, and the trading price of the Company's common stock, and could include temporary closures of one or more of the Company's facilities; temporary or long-term labor shortages; temporary or long-term adverse impacts on the Company's supply chain and distribution channels; and the potential of increased network vulnerability and risk of data loss resulting from increased use of remote access and removal of data from the Company's facilities. In addition, COVID-19 could negatively impact capital expenditures and overall economic activity in the impacted regions or depending on the severity, globally, which could impact the demand for the Company's products and services.

It is unknown whether and how the Company may be impacted if the COVID-19 pandemic persists for an extended period of time or if there are increases in its breadth or in its severity, including as a result of the waiver of regulatory requirements or the implementation of emergency regulations to which the Company is subject. The COVID-19 pandemic poses a risk that the Company or its employees, contractors, suppliers, and other partners may be prevented from conducting business activities for an indefinite period.

The Company may incur expenses or delays relating to such events outside of its control, which could have a material adverse impact on its business, operating results, financial condition and the trading price of its common stock.

# Going Concern

The Company has had negative cash flows from operations and operated at a net loss since inception. In the prior year our auditors included a paragraph in their opinion regarding the substantial doubt that existed of our ability to continue as a going concern. As noted in note 14 we completed our initial public offering subsequent to year end. We believe that the funds raised and notes that were converted from debt to equity now provides enough liquidity to alleviate the substantial doubt. There can be no assurance that we will not need additional funding in the future.

# NOTE 3 – PROPERTY AND EQUIPMENT

Property and equipment consisted of the following:

During the year ended December 31, 2022, the Company acquired \$8,744 of equipment and has accumulated depreciation of \$1,045, for a net of \$7,699.

Depreciation expense totaled \$1,045, and \$0 in the years ended December 31, 2022 and 2021, respectively.

# NOTE 4 – ACCOUNTS PAYABLE AND ACCRUED EXPENSES

As of December 31, 2022 and 2021, the Company had accounts payable and accrued expenses totaling \$1,526,981 and \$422,817, respectively.

# NOTE 5 -NOTES PAYABLE

On May 5, 2020 the Company received an SBA PPP loan in the amount of \$9,917, at 1% interest. The loan was forgiven on March 15, 2021.

### NOTE 6 -NOTES PAYABLE RELATED PARTY

On June 15, 2021, the company entered into an unsecured short term loan agreement with a related party for an aggregate principal balance of \$34,000, with a one-year maturity date, accruing interest at 5% and imputing an additional 1% interest. The full amount of the loan and interest was repaid in 2022.

On November 19, 2021, 2021, the company entered into an unsecured short term loan agreement with a related party for an aggregate principal balance of \$5,000, with a oneyear maturity date, accruing interest at 5% and imputing an additional 1% interest. The full amount of the loan and interest was repaid in 2022.

On December 13, 2021, the company entered into an unsecured short term loan agreement with a related party for an aggregate principal balance of \$10,000, with a one-year maturity date, accruing interest at 5% and imputing an additional 1% interest. The full amount of the loan and interest was repaid in 2022.



#### NOTE 7 – CONVERTIBLE NOTES PAYABLE

On March 27, 2020, the company entered into a convertible loan agreement with the Maryland Technology Development Corporation with a principal balance of \$200,000 at 6% interest. The maturity date of the loan was September 27, 2021. During the year ended ended December 31, 2022, the full amount of the loan and interest totaling \$226,138 was converted into 205,984 shares of common stock (post reverse stock split) of the Company, in accordance with the conversion notice submitted by the noteholder. Pursuant to the note agreement, the number of shares that the note converted into was based on the note balance plus accrued interest divided by \$5,000,000 times the fully diluted equity of the company, excluding convertible securities issued for capital raising purposes. There was no gain or loss due to conversion, being within the terms of the agreement.

On August 9, 2021, the company entered into a convertible loan agreement with an unrelated party to loan up to \$195,000 at 9% interest, with a principal balance of \$72,000, as of December 31, 2021. This loan included an original issuance discount of 5%, and included 195,000 Warrants at an exercise price of \$1, exercisable for 5 years from the issue date on the face of the Warrant. The noteholder has the right to convert the principal and interest into common shares of the Company. The maturity date of the loan was February 9, 2022. During the year ended December 31, 2022, another \$123,000 principal with an additional \$6,150 original issuance discount, was loaned to the Company. In May 2022, the Company and the note holder agreed to cancel and void previous warrants and entered into a new agreement for 225,000 warrants with an exercise price of \$2.50. As of December 31, 2022, the loan was outstanding with a principal balance of \$195,000, accrued interest of \$35,078, amortization of debt discount of \$8,393, and unamortized debt discount of \$0. The warrants discussed above were initially discounted against the notes, subsequent to year end December 31, 2021, they were deemed voided and new warrants in accordance with the new terms were issued. We assessed the differences in fair value and determined that they were de minimis and expensed the full value of the new warrants. During the year ended December 31, 2022 the Company recorded an expense of \$64,978.

On December 20, 2021, the company entered into a loan agreement with an unrelated party, with a principal balance of \$25,000 at 6% interest. The maturity date of the loan was December 19, 2022. During the year ended December 31, 2022, the note principal was increased by \$2,778 representing a 10% original issue discount pursuant to the enhanced terms mentioned below. As of December 31, 2022, the loan remained outstanding had accrued interest of \$2,301. The loan was converted to common stock in February 2023 in connection with the Company IPO. Initially, the loan was estimated to be issued with 355,114 warrants. Subsequent to the entry into the December 20, 2021 the loan agreement, the Company enhanced the terms of the Bridge Note Offering under which the loan was closed and in April 2022 closed on the sale of approximately \$1M in face value of convertible bridge notes, as described in footnote 13. Pursuant to the enhanced terms, the warrants will not be issued until the note converts.

On April 11, 2022, the Company entered into an Exclusive placement agent and/or underwriter agreement with WallachBeth Capital LLC in connection with a proposed private and/or public offerings by the Company. As discussed in Footnote 2, a significant component of the Company's plan to secure capital is the intention of the Company to seek to be listed on a national exchange through an initial public offering ("IPO") of its common stock. WallachBeth was engaged in this regard and on April 28, 2022, the Company received net proceeds of approximately \$775,000 from the sale of Convertible Bridge Notes and Warrants to several institutional investors as well as several individual accredited investors. In connection with the April 28th note sale, the Company paid approximately \$91,560 in fees and expenses. In addition to the money received on April 28th, the Company also received \$100,000 from the sale of a Convertible Bridge Note and Warrants to a related party earlier in April. In September 2022, the Company sold one additional bridge note to an unrelated party, with a principal balance of \$27,779. The Convertible Bridge Notes were issued with a 10% original issue discount and are convertible at the IPO at a 20% discount to the IPO price. The purchasers will also be issued a warrant for each share of common stock issued upon conversion of the Note at a price equal to 110% of the IPO price or, if the Company fails to complete the IPO before October 22, 2022, 90% of the IPO price. The Convertible Bridge Notes and accrued interest through November 31, 2022. The Company has filed an S-1 Registration Statement and conducted an IPO in February 2023. All of the Convertible Bridge Notes and accrued interest through November, 30, 2022 were converted at the IPO. Pursuant to further amendments to the notes, the maturity date was extended, interest accrued after November 30, 2022 though conversion will be paid to the holders in cash and the conversion right was revised to be equal to a \$25 million dollar Company valuation, or \$

As of December 31, 2022, the table below reflects the balances of the Convertible Bridge Notes sold pursuant April 11, 2022 agreement with WallachBeth. All notes are mandatorily converted at the IPO at the conversion ratio noted above and the purchasers will also be issued a warrant for each share of common stock issued upon conversion with an exercise price set by the exchange ratio. Due to the IPO price not yet being probable at year end, no current accounting for these warrants has been journalized.

Note Date	Ι	Purchase Price	Principal Balance	ginal Issue Discount	Accrued Interest
4/28/2022	\$	250.000	\$ 277,778	\$ 27.778	\$ 17,083
4/28/2022	\$	250,000	\$ 277,778	\$ 27,778	\$ 17,083
4/28/2022	\$	250,000	\$ 277,778	\$ 27,778	\$ 17,083
4/28/2022	\$	25,000	\$ 27,778	\$ 2,778	\$ 1,708
4/28/2022	\$	28,000	\$ 31,111	\$ 3,111	\$ 1,913
4/28/2022	\$	28,000	\$ 31,111	\$ 3,111	\$ 1,913
4/28/2022	\$	35,000	\$ 38,889	\$ 3,889	\$ 2,392
12/20/2021*	\$	25,000	\$ 27,778	\$ 2,778	\$ 2,301
4/13/2022*	\$	100,000	\$ 111,111	\$ 11,111	\$ 7,111
9/9/2022	\$	25,000	\$ 27,778	\$ 2,778	\$ 1,088
Total	\$	1,016,000	\$ 1,128,889	\$ 112,889	\$ 69,675

# \* Notes sold by Company prior to the April 28, 2022 closing

In August 2020, the FASB issued ASU 2020-06, Debt - Debt with Conversion and Other Options (Subtopic 470- 20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity ("ASU 2020-06"), which simplifies the accounting for certain financial instruments with characteristics of liabilities and equity. The Company specified that an entity should adopt the guidance as of the beginning of its annual fiscal year. After adoption of ASU 2020-06, if the equity securities underlying the conversion option are not readily convertible to cash, and the conversion option requires gross physical settlement of the underlying shares, the embedded conversion option may not meet the net settlement criterion, and therefore would not meet the definition of a derivative. Considering that the Common shares of the Company were not publicly traded as of December 31, 2022, the convertible options are not considered to be readily convertible to cash. In addition, the beneficial conversion feature was eliminated under ASU 2020-06. Therefore, no derivative liabilities will be triggered from these convertible notes. All conversions are contingent upon an effective IPO, which had not yet been considered probable.

# NOTE 8 – CONVERTIBLE NOTES PAYABLE RELATED PARTY

On July 8, 2021, the company entered into a Simple Agreement for Future Equity (SAFE), with a related party, with an amount of \$150,000, with 0% interest. Under the SAFE agreement, if there is an Equity Financing before the termination of this SAFE, on the initial closing of such Equity Financing, this SAFE will automatically convert into the number of shares of SAFE Preferred Stock equal to the Purchase Amount divided by the Conversion Price, which means either: (1) the Safe Price (the price per share equal to the Post-Money Valuation Cap divided by the Company Capitalization) or (2) the Discount Price (the price per share of the Standard Preferred Stock sold in the Equity Financing multiplied by the Discount Rate), whichever calculation results in a greater number of shares of Safe Preferred Stock

If there is a Liquidity Event before the termination of this SAFE, this SAFE will automatically be entitled (subject to the liquidation priority set forth in Section 1(d) below) to receive a portion of Proceeds, due and payable to the Investor immediately prior to, or concurrent with, the consummation of such Liquidity Event, equal to the greater of (i) the Purchase Amount (the "Cash-Out Amount") or (ii) the amount payable on the number of shares of Common Stock equal to the Purchase Amount divided by the Liquidity Price (the "Conversion Amount"). If any of the Company's securityholders are given a choice as to the form and amount of Proceeds to be received in a Liquidity Event, the Investor will be given the same choice, provided that the Investor may not choose to receive a form of consideration that the Investor would be ineligible to receive as a result of the Investor's failure to satisfy any requirement or limitation generally applicable to the Company's securityholders, or under any applicable laws.

This SAFE will automatically terminate (without relieving the Company of any obligations arising from a prior breach of or non-compliance with this SAFE) immediately following the earliest to occur of: (i) the issuance of Capital Stock to the Investor pursuant to the automatic conversion of this SAFE under agreement; or (ii) the payment, or setting aside for payment, of amounts due the Investor pursuant to the agreement.

As of December 31, 2022 and 2021, the \$150,000 received from SAFE was recorded at 6% imputed interest. The maturity date of the loan is defined by the SAFE agreement as discussed above.

On August 19, 2021, the company entered into a convertible loan agreement with a related party, with a principal balance of \$99,900 at 9% interest. The noteholder has the right to convert the principal and interest into common shares of the Company. This loan included an original issuance discount of 5% and included 99,900 Warrants at an exercise price of \$1, exercisable for 5 years from the issue date on the face of the Warrant. The maturity date of the loan was February 19, 2022. In May 2022, the Company and the note holder agreed to cancel and void previous warrants and entered into a new agreement for 115,185 warrants with an exercise price of \$2.50. As of December 31, 2022, the \$99,900 principal and the \$4,950 overpayment of the note remained outstanding and had accrued interest of \$12,463.53. The warrants discussed above were initially discounted against the notes, subsequent to year end December 31, 2021, they were deemed voided and new warrants in accordance with the new terms were issued. We assessed the differences in fair value and determined that they were de minimis and expensed the full value of the new warrants.

The SAFE and the convertible loan agreement with accrued interest converted to common stock at the IPO.

The Company specified that an entity should adopt ASU 2020-06 as of the beginning of its annual fiscal year. After adoption of ASU 2020-06, no derivative liabilities will be triggered from these convertible notes. See Note 7 for details.

### NOTE 9-RELATED PARTY

During the year-ended December 31, 2021, there were 57,143 shares of common stock (post reverse stock split) issued to CFO Dane Saglio, for services rendered.

As of December 31, 2022 and 2021, the accrued salary for related parties was \$566,916 and \$285,666, respectively. The increase reflects salaries accrued for employees, but not paid in the year ended December 31, 2022.

As of December 31, 2022, the Company accrued consulting fees to related parties of \$90,000 for services provided to the Company.

During the year ended December 31, 2021, the Company issued options totaling 29,286 shares of common stock (post reverse stock split) to related party for services rendered. The options have an original life of ten years and vest at different rates over as much as 24 months. During the year ended December 31, 2022, the Company did not issue any options and recognized \$1,803 of stock-based compensation related to outstanding stock options.

#### NOTE 10- SHAREHOLDER'S DEFICT

### **Preferred Stock**

The Company has 10,000,000 shares of preferred stock authorized at a par value of \$0.00001. As of December 31, 2021, there were no preferred shares issued. On October 5, 2022, the Company entered into an exchange agreement with the Investor whereby all of his common stock, 734,492 shares of commons stock (post reverse stock split), were exchanged into 73,449 shares of Series A Convertible Preferred Stock (post reverse stock split). Per the agreement the exchange was based on a 1 Series A Convertible Preferred Stock for each 10 shares of common stock. Each holder of Series A Preferred Stock may, from time to time, convert any or all of such holder's shares of Series A Preferred Stock into fully paid and nonassessable shares of Common Stock in an amount equal to ten shares of common stock for each one share of Series A Preferred Stock surrendered. 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. The Company evaluated the terms of the exchange and determined there would be no significant change in fair value and therefore no accounting entry recorded as a result of the exchange. The value of the Series A Preferred Stock was determined to be \$315,000 which is the Investor's basis in the common stock that was exchanged.

#### **Common Stock**

In June of 2020, BullFrog AI Holdings, Inc. acquired BullFrog AI, Inc. via a 1:1 share exchange. Immediately prior to the share exchange, each authorized common share of BullFrog AI, Inc. was split into 25 shares of common stock. Share amounts in our financial statements for December 31, 2022 and 2021, have been adjusted to reflect this forward share split and shares exchange. All of our operations are currently conducted through BullFrog AI Holdings, Inc. BullFrog AI, Inc., is a wholly owned subsidiary, has the sole purpose of housing and protecting all of the organization's intellectual property. BullFrog AI Management, LLC is a wholly owned subsidiary that handles all HR and payroll activities.

The Company has 100,000,000 shares of common stock authorized at a par value of \$0.00001. During year ended December 31, 2022, 734,492 shares of common stock (post reverse stock split) were exchanged for preferred shares as noted above, 205,984 shares of common stock (post reverse stock split) were issued for conversion of principal and interest of \$226,138 by a noteholder, 112,225 shares of common stock (post reverse stock split) were canceled as the change in number of shares issued as part of the cancellation of the prior agreements and new agreements with advisors, and 38,879 shares of common stock (post reverse stock split) were issued under a license agreement and valued at \$189,828, see Note 12 for further discussion. As of December 31, 2022 and 2021, there are 4,021,935 and 4,622,789, shares of common stock (post reverse stock split) outstanding, respectively.



After the Company signed two licenses for two drug programs from universities in the first half of 2022 it engaged an independent valuation firm to perform an Enterprise-Equity valuation. The results of this engagement resulted in an increase in the value per share of common stock used in the Black Scholes option pricing model employed to value the Company's equity grants and warrant issuances.

Our Board of Directors and stockholders approved an amendment to our Certificate of Incorporation to effect a 1-for-7 reverse stock split of our common stock in connection with the offering, subsequent to the year ended December 31, 2022. As a result of the reverse stock split, every 7 shares of our outstanding common stock will be combined and reclassified into one share of our common stock. Unless otherwise noted, the share and per share information in this Form 10-K filing reflects, other than in our historical financial statements and the notes thereto, a proposed reverse stock split of the outstanding common stock of the Company at an assumed 1-for-7 ratio.

#### Stock Options

During the first quarter of 2022, 399,354 shares of options (post reverse stock split) were forfeited due to the termination of employment.

During the year ended December 31, 2021, the Company granted a total of 29,286 shares of options (post reverse stock split) to employees of the Company for services rendered. The options have an original life of ten years and vest at different rates over as much as 48 months. During the years ended December 31, 2021, the Company vested 1,310 of these options (post reverse stock split) and recognized \$157 of stock-based compensation related to outstanding stock options. During the year ended December 31, 2022, 16,601 shares of these options (post reverse stock split) were vested and \$2,010 stock-based compensation was recognized.

The following tables summarizes the stock options (post reverse stock split) activity for the years ended December 31, 2022 and 2021:

Granted and outstanding, December 31, 2020	884,821
Granted during 2021	29,286
Exercised	-
Forfeited	-
Expired during 2021	(445,536)
Granted and outstanding, December 31, 2021	468,571
Granted during 2022	-
Exercised	-
Forfeited	(399,354)
Expired during 2022	<u> </u>
Granted and outstanding, December 31, 2022	69,217

	Options	Intrinsic Value of Vested Options	Weight Averaged exercise Price
Vested and outstanding, December 31, 2020	104,795	12,706	3.36
Granted and vested during 2021	1,310	157	2.66
Exercised	-	-	-
Forfeited	-	-	-
Expired	(66,524)	(7,922)	(3.36)
Vested and outstanding, December 31, 2021	39,581	4,941	3.36
Granted and vested during 2022	16,661	2,010	2.73
Exercised	-	-	-
Forfeited	-	-	-
Expired	-	-	-
Vested and outstanding, December 31, 2022	56,242	6,951	3.15

As of December 31, 2022 and 2021, 16,661 and 1,310 options (post reverse stock split) vested, respectively, 0 and 66,524 (post reverse stock split) options expired and the outstanding stock options have a weighted average remaining life of 7.08 and 7.38 years, respectively.

As of December 31, 2022 and 2021, the fair value of options vested and outstanding was \$ 6,951 and \$4,941, respectively. The aggregate fair value of the options measured during the year ended December 31, 2022 and 2021 was calculated using the Black-Scholes option pricing model based on the following assumption:

	Ι	December 31, 2022	Decemb	per 31, 2021
Fair Value of Common Stock on measurement date	\$	4.76	\$	0.308
Risk free interest rate		From 0.79% to 3.01%		From 1.26% to 1.33%
Volatility		89%		93%
Dividend Yield		0%		0%
Expected Term		4-10		10

(1) The risk-free interest rate was determined by management using the market yield on U.S. Treasury securities with comparable terms as of the measurement date.

(2) The trading volatility was determined by calculating the volatility of the Company's peer group.

(3) The Company does not expect to pay a dividend in the foreseeable future.

#### Warrants

During the year ended December 31, 2022, the Company granted a total of 123,660 warrants (post reverse stock split). The warrants have an original life of four to ten years and vest immediately and over 12 months. During the year ended December 31, 2022, 174,105 shares of warrants (post reverse stock split) were vested and amended with an intrinsic value of \$337,269, 51,941 shares of warrants (post reverse stock split) were reclassified with an intrinsic value of \$11,097, and 42,057 shares of warrants (post reverse stock split) with an intrinsic value of \$1,883 were forfeited.

During the year ended December 31, 2021, the Company granted a total of 431,659 warrants (post reverse stock split). Of this amount 200,000 warrants (post reverse stock split), with a fair value of \$12,462, were granted to advisors related to the Company's IPO objective. The warrants have an original life of five years and vest 30 days before the intended IPO. During the year ended December 31, 2021, 0 shares of these warrants were vested. As of June 30, 2022, the warrants for 200,000 shares (post reverse stock split) were cancelled and voided per agreement of the warrant holder and the Company. There was no gain or loss due to cancellation. In 2021, 138,929 warrants (post reverse stock split), with a fair value of \$28,683, were issued for services rendered. The warrants have an original life of ten years and vest at different rates over as much as 36 months.

During the year ended December 31, 2021, the Company issued 92,859 warrants (post reverse stock split) with a fair value of \$12,980, in connection with convertible bridge debt agreements with multiple parties including a related party. The warrants had an original life of five years. During the period ending June 30, 2022, the Company determined that 50,735 warrants (post reverse stock split), with a fair value of \$11,097, should not have been issued as further described in footnote 8. The fair value was reclassified to Additional Paid in Capital. As discussed in Note 8 in May 2022, the Company and the note holders agreed to cancel and void the previous 99,000 warrants (post reverse stock split) and entered into a new agreement for 115,185 (post reverse stock split) and the exercise price increased to \$2.50 from \$1, with a fair value of \$15,412. As discussed in Note 8 in May 2022, the Company and the previous 195,000 (post reverse stock split) warrants and entered into a new agreement for 225,000 warrants (post reverse stock split) with an exercise price of \$2.50, with a fair value of \$64,978.

The 92,859 warrants (post reverse stock split) discussed above were initially discounted against the notes, subsequent to year end December 31, 2021, they were deemed voided and these individuals were or will be issued new warrants in accordance with the new terms as stated above. We assessed the differences in fair values and determined the values were de minimis and expensed the full value of the new warrants.

The following tables summarize the warrant activity (post reverse stock split) for the year ended December 31, 2022 and 2021,

	Warrants
Granted and outstanding, December 31, 2020	495,714
Granted during 2021	431,659
Exercised	-
Forfeited	-
Expired during 2021	-
Granted and outstanding, December 31, 2021	927,373
Granted during 2022	123,660
Exercised	-
Forfeited	(298,088)
Expired during 2022	-
Granted and outstanding, December 31, 2022	752,945

	Warrants	Intrinsic Value of Warrants	Weight Averaged exercise Price
Vested and outstanding, December 31, 2020	479,940	127,480	0.98
Granted and Vested 2021	137,552	22,208	3.15
Exercised	-	-	-
Forfeited	-	-	-
Expired	-	-	-
Vested and outstanding, December 31, 2021	617,492	149,688	2.80
Granted and Vested 2022	174,105	337,263	3.15
Exercised	-	-	-
Forfeited	(94,665)	(12,980)	-
Expired	-	-	-
Vested and outstanding, December 31, 2022	696,932	473,971	1.96
	F-17		

As of December 31, 2022, 752,945 warrants (post reverse stock split) are outstanding, and 696,932 warrants (post reverse stock split) vested, and the vested stock warrants have a weighted average remaining life of 7.13 years.

For the year ended December 31, 2022, the aggregate fair value of warrants vested was \$324,283. The aggregate fair value of the warrants measured during the year ended December 31, 2022 was calculated using the Black-Scholes option pricing model and recorded as stock-based compensation.

For the year ended December 31, 2021, 927,516 warrants (post reverse stock split) are outstanding, 617,492 warrants (post reverse stock split) are vested with an intrinsic value of \$22,208, and the vested stock warrants have a weighted average remaining life of 7.73 years.

As of December 31, 2021, the aggregate fair value of warrants vested was \$149,688. The aggregate fair value of the warrants measured during the year-ended December 31, 2021 was calculated using the Black-Scholes option pricing model.

The number of warrants related to the Convertible Bridge Notes discussed Note 7 is not yet determinable, given some of the terms discussed in Note 8 have not been completed. Therefore, the warrants to be issued are not accounted for in our warrants outstanding. Due to the IPO price not being completed at December 31, 2022, no current accounting for these warrants has been journalized.

	1	December 31, 2022	December 31, 2021		
Fair Value of Common Stock on measurement date	\$	4.76	\$	0.308	
Risk free interest rate		From 1.86% to 1.97%		From 0.78% to 1.63%	
Volatility		89%		93%	
Dividend Yield		0%		0%	
Expected Term		10 years		5-10 years	

- (1) The risk-free interest rate was determined by management using the market yield on U.S. Treasury securities with comparable terms as of the measurement date.
- (2) The trading volatility was determined by calculating the volatility of the Company's peer group.
- (3) The Company does not expect to pay a dividend in the foreseeable future.
- (4) After the Company signed two licenses for two drug programs from universities in the first half of 2022 it engaged an independent valuation firm to perform an Enterprise-Equity valuation. The results of this engagement resulted in an increase in the value per share of common stock used in the Black Scholes option pricing model employed to value the Company's equity grants and warrant issuances for all 2022 grant date stock prices.

### NOTE 11 – INCOME TAXES

As of December 31, 2022, the Company has available for federal income tax purposes a net operating loss carry forward of approximately \$4,399,055, that do not expire, that may be used to offset future taxable income, but could be limited under Section 382. The Company has provided a valuation reserve against the full amount of the net operating loss benefit, since in the opinion of management based upon the earnings history of the Company; it is more likely than not that the benefits will not be realized. Due to possible significant changes in the Company's ownership, the future use of its existing net operating losses may be limited. All or portion of the remaining valuation allowance may be reduced in future years based on an assessment of earnings sufficient to fully utilize these potential tax benefits.

We have adopted the provisions of ASC 740-10-25, which provides recognition criteria and a related measurement model for uncertain tax positions taken or expected to be taken in income tax returns. ASC 740-10-25 requires that a position taken or expected to be taken in a tax return be recognized in the financial statements when it is more likely than not that the position would be sustained upon examination by tax authorities.

Tax position that meets the more likely than not threshold is then measured using a probability weighted approach recognizing the largest amount of tax benefit that is greater than 50% likely of being realized upon ultimate settlement. The Company had no tax positions relating to open income tax returns that were considered to be uncertain. We file income tax returns in the U.S. and in the state of California and Utah with varying statutes of limitations.

The Company's deferred taxes as of December 31, 2022 and 2021 consist of the following:

	20	2022		2021	
Non-Current deferred tax asset:					
Net operating loss carryforwards	\$	924,000	\$	339,000	
Valuation allowance		(924,000)		(339,000)	
Net non-current deferred tax asset	\$	_	\$		

#### NOTE 12 - MATERIAL AGREEMENTS

# JHU-APL Technology License

On February 7, 2018, the Company entered into an exclusive, world-wide, royalty-bearing license from JHU-APL for the technology. The license covers three (3) issued patents, 1 new provisional patent application, non-patent rights to proprietary libraries of algorithms and other trade secrets, the license also includes modifications and improvements. In October of 2021, the Company executed an Amendment to the original license which represents 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 (5%) percent of the then fully diluted equity base of the Company, which shall be diluted following the closing of this offering. Under the terms of the License Agreement, JHU will be entitled to eight (8%) percent royalty on net sales for the services provided by the Company in which the JHU licensed technology was utilized, as well as fifty (50%) percent of all sublicense revenues received by the Company. 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 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 31<sup>st</sup> 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 breech. On July 8, 2022, the company entered into an exclusive, world-wide, royalty-bearing license from JHU-APL for the additional technology developed to enhance the bfLEAPTM platform. The new license provides additional intellectual property rights including patents, copyrights and knowhow to be utilized under the Company's bfLEAPTM analytical AI/ML platform. This license supersedes the previous license. In consideration of the new license, the Company issued 279,159 shares of common stock. (see note 10) 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 3% for internally development 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 for 2024 and beyond. As of December 31, 2022, we have accrued, \$30,000 of the 2022 minimum annual royalty payments. See Note 10 for details on common shares and warrants issued related to this agreement.

#### George Washington University - Beta2-spectrin siRNA License

On January 14, 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 GWU received 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 December 31, 2022, there has been no accrual for royalties, since we have not begun revenue. The Company assessed whether the license should be capitalized and determined that the licensed program is early stage and therefore the Company expensed the license fee and will expense development costs until commercial viability is likely.

#### Johns Hopkins University - Mebendazole License

On February 22, 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 of 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 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 addition, the Company is required to pay JHU minimum annual royalty payments of \$5,000 for 2023, \$10,000 for 2024, \$20,000 for 2025, \$30,000 for 2026 and \$50,000 for 2027 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. 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 is deferred until the earlier of; we complete the IPO, raise \$10 million in financing or until 9 months from the effective date of the license. As of December 31, 2022, the balance of accrued expense related to this license agreement was \$242,671. The Company assessed whether the license should be capitalized and determined that the licensed program is early stage and therefore the Company expensed the license fee and will expense development costs until commercial viability is likely.

# Johns Hopkins University - Prodrug License

On October 13, 2022, the Company entered into an exclusive, world-wide, royalty-bearing license from Johns Hopkins University (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 addition, the Company is required to pay JHU and IOCB minimum annual royalty payments of \$5,000 for 2027, \$10,000 for 2028, \$20,000 for 2029, \$30,000 for 2030 and \$50,000 for 2031 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. As of December 31, 2022, the balance of accrued expense related to this license agreement was \$133,238. The Company assessed whether the license should be capitalized and determined that the licensed program is early stage and therefore the Company expensed the license fee and will expense development costs until commercial viability is likely.

### NOTE 13 - COMMITMENTS AND CONTINGENCIES

The Company follows ASC 450, Contingencies, which requires the Company to assess the likelihood that a loss will be incurred from the occurrence or non-occurrence of one or more future events. Such assessment inherently involves an exercise of judgment. In assessing possible loss contingencies from legal proceedings or unasserted claims, the Company evaluates the perceived merits of such proceedings or claims, and of the relief sought or expected to be sought.

If the assessment of a contingency indicates that it is probable that a material loss will be incurred and the amount of the liability can be estimated, then the estimated liability would be accrued in the Company's financial statements. If the assessment indicates that a potentially material loss contingency is not probable but is reasonably possible, or is probable but cannot be estimated, then the nature of the contingent liability, and an estimate of the range of possible losses, if determinable and material, would be disclosed. Loss contingencies considered remote are generally not disclosed unless they involve guarantees, in which case the guarantees would be disclosed.

While not assured, management does not believe, based upon information available at this time, that a loss contingency will have material adverse effect on the Company's financial position, results of operations or cash flows.

# NOTE 14 – SUBSEQUENT EVENTS

On February 14, 2023 the Company conducted its initial public offering 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 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 Warrants") to purchase one share of the Company's common stock at an exercise price of \$8.125. The offering closed on February 16, 2023.

In connection with the offering, the Company common shares were subject to a 1-7 reverse stock split - 1 share of new common for 7 shares then outstanding common stock. Also, in connection with the IPO a SAFE and convertible loan agreement held by a related party converted into 55,787 shares of post reverse common stock. Additionally, all outstanding Convertible Bridge Notes and accrued interest through November 30, 2022 were converted into 276,289 shares common stock and 276,289 warrants to purchase common stock were issued to the Convertible Bridge Note holders at conversion. The Bridge Note conversions and the warrant exercise pricing was determined using a \$25 million dollar company valuation immediately before the IPO.

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



### BULLFROG AI HOLDINGS, INC.

#### **2022 EQUITY INCENTIVE PLAN**

As adopted by the Board of Directors of Bullfrog AI Holdings, Inc. on November 30, 2022.

As approved by the shareholders of Bullfrog AI Holdings, Inc. on November 30, 2022.

#### 1. Purpose; Eligibility.

1.1 <u>General Purpose</u>. The name of this plan is the Bullfrog AI Holdings, Inc., 2022 Equity Incentive Plan (the "**Plan**"). The purposes of the Plan are to (a) enable BullFrog AI Holdings, Inc., a Nevada corporation (the "**Company**"), and any Affiliate to attract and retain the types of Employees, Consultants and Directors who will contribute to the Company's long range success; (b) provide incentives that align the interests of Employees, Consultants and Directors with those of the shareholders of the Company; and (c) promote the success of the Company's business.

1.2 Eligible Award Recipients. The persons eligible to receive Awards are the Employees, Consultants and Directors of the Company and its Affiliates and such other individuals designated by the Committee who are reasonably expected to become Employees, Consultants and Directors after the receipt of Awards.

1.3 <u>Available Awards</u>. Awards that may be granted under the Plan include: (a) Incentive Stock Options, (b) Non-qualified Stock Options, (c) Stock Appreciation Rights, (d) Restricted Awards, (e) Performance Share Awards, (f) Cash Awards, and (g) Other Equity-Based Awards.

### 2. Definitions.

"Affiliate" means a corporation or other entity that, directly or through one or more intermediaries, controls, is controlled by or is under common control with, the Company.

"Applicable Laws" means the requirements related to or implicated by the administration of the Plan under applicable state corporate law, United States federal and state securities laws, the Code, any stock exchange or quotation system on which the shares of Common Stock are listed or quoted, and the applicable laws of any foreign country or jurisdiction where Awards are granted under the Plan.

"Award" means any right granted under the Plan, including an Incentive Stock Option, a Non-qualified Stock Option, a Stock Appreciation Right, a Restricted Award, a Performance Share Award, a Cash Award, or an Other Equity-Based Award.

"Award Agreement" means a written agreement, contract, certificate or other instrument or document evidencing the terms and conditions of an individual Award granted under the Plan which may, in the discretion of the Company, be transmitted electronically to any Participant. Each Award Agreement shall be subject to the terms and conditions of the Plan.

"Beneficial Owner" has the meaning assigned to such term in Rule 13d-3 and Rule 13d-5 under the Exchange Act, except that in calculating the beneficial ownership of any particular Person, such Person shall be deemed to have beneficial ownership of all securities that such Person has the right to acquire by conversion or exercise of other securities, whether such right is currently exercisable or is exercisable only after the passage of time. The terms "Beneficially Owns" and "Beneficially Owned" have a corresponding meaning.

"Board" means the Board of Directors of the Company, as constituted at any time.

"Cash Award" means an Award denominated in cash that is granted under Section 10 of the Plan.

"Cause" means:

With respect to any Employee or Consultant, unless the applicable Award Agreement states otherwise:

(a) If the Employee or Consultant is a party to an employment or service agreement with the Company or its Affiliates and such agreement provides for a definition of Cause, the definition contained therein; or

(b) If no such agreement exists, or if such agreement does not define Cause: (i) the commission of, or plea of guilty or no contest to, a felony or a crime involving moral turpitude or the commission of any other act involving willful malfeasance or material fiduciary breach with respect to the Company or an Affiliate; (ii) conduct that brings or is reasonably likely to bring the Company or an Affiliate negative publicity or into public disgrace, embarrassment, or disrepute; (iii) gross negligence or willful misconduct with respect to the Company or an Affiliate; (iv) material violation of state or federal securities laws; or (v) material violation of the Company's written policies or codes of conduct, including written policies related to discrimination, harassment, performance of illegal or unethical activities, and ethical misconduct.

With respect to any Director, unless the applicable Award Agreement states otherwise, a determination by a majority of the disinterested Board members that the Director has engaged in any of the following:

- (a) malfeasance in office;
- (b) gross misconduct or neglect;
- (c) false or fraudulent misrepresentation inducing the director's appointment;
- (d) willful conversion of corporate funds; or

(e) repeated failure to participate in Board meetings on a regular basis despite having received proper notice of the meetings in advance.

The Committee, in its absolute discretion, shall determine the effect of all matters and questions relating to whether a Participant has been discharged for Cause.

#### "Change in Control" means:

(a) if the Award is not subject to Section 409A of the Code:

(i) The direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries, taken as a whole, to any Person that is not a subsidiary of the Company;

(ii) The Incumbent Directors cease for any reason to constitute at least a majority of the Board;

(iii) The date which is 10 business days prior to the consummation of a complete liquidation or dissolution of the Company;

(iv) The acquisition by any Person of Beneficial Ownership of more than 50% (on a fully diluted basis) of either (i) the then outstanding shares of Common Stock of the Company, taking into account as outstanding for this purpose such Common Stock issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such Common Stock (the "Outstanding Company Common Stock") or (ii) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); *provided, however*, that for purposes of this Plan, the following acquisitions shall not constitute a Change in Control: (A) any acquisition by the Company or any Affiliate, (B) any acquisition by any employee benefit plan sponsored or maintained by the Company or any subsidiary, (C) any acquisition which complies with clauses, (i), (ii) and (iii) of subsection (e) of this definition or (D) in respect of an Award held by a particular Participant, any acquisition by the Participant or any group of persons including the Participant (or any entity controlled by the Participant or any group of persons including the Participant); or

(v) The consummation of a reorganization, merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company that requires the approval of the Company's shareholders, whether for such transaction or the issuance of securities in the transaction (a "Business Combination"), unless immediately following such Business Combination: (i) more than 50% of the total voting power of (A) the entity resulting from such Business Combination (the "Surviving Company"), or (B) if applicable, the ultimate parent entity that directly or indirectly has beneficial ownership of sufficient voting securities eligible to elect a majority of the members of the board of directors (or the analogous governing body) of the Surviving Company (the "Parent Company"), is represented by the Outstanding Company Voting Securities that were outstanding immediately prior to such Business Combination), and such voting power among the holders thereof is in substantially the same proportion as the voting power of the Outstanding Company Voting Securities among the holders thereof is on business Combination; (ii) no Person (other than any employee benefit plan sponsored or maintained by the Surviving Company or the Parent Company) is or becomes the Beneficial Owner, directly or indirectly, of 50% or more of the total voting power of the outstanding voting securities eligible to elect members of the board of directors of the Parent Company (or the analogous governing body) (or, if there is no Parent Company); and (iii) at least a majority of the members of the board of directors (or the analogous governing body) of the Business Combination; (or the analogous governing body) of the Parent Company (or, if there is no Parent Company); and (iii) at least a majority of the members of the board of directors (or the analogous governing body) of the Parent Company (or, if there is no Parent Company); and the surviving Company) following the consummation of the Business Combination were Board members at the time of the

(b) if the Award is subject to Section 409A of the Code:

(i) One Person (or more than one Person acting as a group) acquires ownership of stock of the Company that, together with the stock held by such person or group, constitutes more than 50% of the total fair market value or total voting power of the stock of the Company; *provided, that*, a Change in Control shall not occur if any Person (or more than one Person acting as a group) owns more than 50% of the total fair market value or total voting power of the Company's stock and acquires additional stock;

(ii) One person (or more than one person acting as a group) acquires (or has acquired during the twelve-month period ending on the date of the most recent acquisition) ownership of the Company's stock possessing 30% or more of the total voting power of the stock of such corporation;

(iii) A majority of the members of the Board are replaced during any twelve-month period by directors whose appointment or election is not endorsed by a majority of the Board before the date of appointment or election; or

(iv) One person (or more than one person acting as a group), acquires (or has acquired during the twelve-month period ending on the date of the most recent acquisition) assets from the Company that have a total gross fair market value equal to or more than 40% of the total gross fair market value of all of the assets of the Company immediately before such acquisition(s).

"Code" means the Internal Revenue Code of 1986, as it may be amended from time to time. Any reference to a section of the Code shall be deemed to include a reference to any regulations promulgated thereunder.

"Committee" means a committee of one or more members of the Board appointed by the Board to administer the Plan in accordance with Section 3.3 and Section 3.4.

"Common Stock" means the common stock, \$0.001 par value per share, of the Company, or such other securities of the Company as may be designated by the Committee from time to time in substitution thereof.

"Consultant" means any individual or entity which performs bona fide services to the Company or an Affiliate, other than as an Employee or Director, and who may be offered securities registerable pursuant to a registration statement on Form S-8 under the Securities Act.

"Continuous Service" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Consultant or Director, is not interrupted or terminated. The Participant's Continuous Service shall not be deemed to have terminated merely because of a change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, *provided that* there is no interruption or termination of the Participant's Continuous Service; *provided further that* if any Award is subject to Section 409A of the Code, this sentence shall only be given effect to the extent consistent with Section 409A of the Code. For example, a change in status from an Employee of the Company to a Director of an Affiliate will not constitute an interruption of Continuous Service. The Committee or its delegate, in its sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of any leave of absence approved by that party, including sick leave, military leave or any other personal or family leave of absence. The Committee or its delegate, in its sole discretion, may determine whether a Company transaction, such as a sale or spin-off of a division or subsidiary that employs a Participant, shall be deemed to result in a termination of Continuous Service for purposes of affected Awards, and such decision shall be final, conclusive and binding.

"Deferred Stock Units (DSUs)" has the meaning set forth in Section 8.1(b) hereof.

"Director" means a member of the Board.

"Disability" means, unless the applicable Award Agreement says otherwise, that the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment; *provided, however*, for purposes of determining the term of an Incentive Stock Option pursuant to Section 6.10 hereof, the term Disability shall have the meaning ascribed to it under Section 22(e)(3) of the Code. The determination of whether an individual has a Disability shall be determined under procedures established by the Committee. Except in situations where the Committee is determining Disability for purposes of the term of an Incentive Stock Option pursuant to Section 22(e)(3) of the Code, the Committee may rely on any determination that a Participant is disabled for purposes of benefits under any long-term disability plan maintained by the Company or any Affiliate in which a Participant participates.

"Disqualifying Disposition" has the meaning set forth in Section 17.12.

"Effective Date" shall mean the date as of which this Plan is adopted by the Board.

"**Employee**" means any person, including an Officer or Director, employed by the Company or an Affiliate; *provided, that,* for purposes of determining eligibility to receive Incentive Stock Options, an Employee shall mean an employee of the Company or a parent or subsidiary corporation within the meaning of Section 424 of the Code. Mere service as a Director or payment of a director's fee by the Company or an Affiliate shall not be sufficient to constitute "employment" by the Company or an Affiliate.

# "Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Fair Market Value" means, as of any date, the value of the Common Stock as determined below. If the Common Stock is listed on any established stock exchange or a national market system, including without limitation, the New York Stock Exchange or the Nasdaq Stock Market, the Fair Market Value shall be the closing price of a share of Common Stock (or if no sales were reported the closing price on the date immediately preceding such date) as quoted on such exchange or system on the day of determination, as reported in the *Wall Street Journal*. In the absence of an established market for the Common Stock, the Fair Market Value shall be determined in good faith by the Committee and such determination shall be conclusive and binding on all persons.

"Fiscal Year" means the Company's fiscal year.

"Free Standing Rights" has the meaning set forth in Section 7.

"Good Reason" means, unless the applicable Award Agreement states otherwise:

(a) If an Employee or Consultant is a party to an employment or service agreement with the Company or its Affiliates and such agreement provides for a definition of Good Reason, the definition contained therein; or

(b) If no such agreement exists or if such agreement does not define Good Reason, the occurrence of one or more of the following without the Participant's express written consent, which circumstances are not remedied by the Company within thirty (30) days of its receipt of a written notice from the Participant describing the applicable circumstances (which notice must be provided by the Participant within ninety (90) days of the Participant's knowledge of the applicable circumstances):

(i) any material, adverse change in the Participant's duties, responsibilities, authority, title, status or reporting structure;

(ii) a material reduction in the Participant's base salary or bonus opportunity; or

(iii) a geographical relocation of the Participant's principal office location by more than fifty (50) miles.

"Grant Date" means the date on which the Committee adopts a resolution, or takes other appropriate action, expressly granting an Award to a Participant that specifies the key terms and conditions of the Award or, if a later date is set forth in such resolution, then such date as is set forth in such resolution.

"Incentive Stock Option" means an Option that is designated by the Committee as an incentive stock option within the meaning of Section 422 of the Code and that meets the requirements set out in the Plan.

"Incumbent Directors" means individuals who, on the Effective Date, constitute the Board, *provided that* any individual becoming a Director subsequent to the Effective Date whose election or nomination for election to the Board was approved by a vote of at least two-thirds of the Incumbent Directors then on the Board (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for Director without objection to such nomination) shall be an Incumbent Director. No individual initially elected or nominated as a director of the Company as a result of an actual or threatened election contest with respect to Directors or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be an Incumbent Director.

"Non-Employee Director" means a Director who is a "non-employee director" within the meaning of Rule 16b-3.

"Non-qualified Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

"Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

"Option" means an Incentive Stock Option or a Non-qualified Stock Option granted pursuant to the Plan.

"Optionholder" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

"Option Exercise Price" means the price at which a share of Common Stock may be purchased upon the exercise of an Option.

"Other Equity-Based Award" means an Award that is not an Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit, or Performance Share Award that is granted under Section 10 and is payable by delivery of Common Stock and/or which is measured by reference to the value of Common Stock.

"Participant" means an eligible person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Award.

"Performance Goals" means, for a Performance Period, the one or more goals established by the Committee for the Performance Period based upon business criteria or other performance measures determined by the Committee in its discretion.

"Performance Period" means the one or more periods of time, as the Committee may select, over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to and the payment of a Performance Share Award or a Cash Award.

"Performance Share Award" means any Award granted pursuant to Section 9 hereof.

"Performance Share" means the grant of a right to receive a number of actual shares of Common Stock or share units based upon the performance of the Company during a Performance Period, as determined by the Committee.

#### "Permitted Transferee" means:

(a) a member of the Optionholder's immediate family (child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships), any person sharing the Optionholder's household (other than a tenant or employee), a trust in which these persons have more than 50% of the beneficial interest, a foundation in which these persons (or the Optionholder) control the management of assets, and any other entity in which these persons (or the Optionholder) own more than 50% of the voting interests; and

(b) such other transferees as may be permitted by the Committee in its sole discretion.

"Person" means a person as defined in Section 13(d)(3) of the Exchange Act.

"Plan" means this BullFrog AI Holdings, Inc. 2022 Equity Incentive Plan, as amended and/or amended and restated from time to time.

"Related Rights" has the meaning set forth in Section 7.

"Restricted Award" means any Award granted pursuant to Section 8.

"Restricted Period" has the meaning set forth in Section 8.

"Rule 16b-3" means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

"Securities Act" means the Securities Act of 1933, as amended.

"Stock Appreciation Right" means the right pursuant to an Award granted under Section 7 to receive, upon exercise, an amount payable in cash or shares equal to the number of shares subject to the Stock Appreciation Right that is being exercised multiplied by the excess of (a) the Fair Market Value of a share of Common Stock on the date the Award is exercised, over (b) the exercise price specified in the Stock Appreciation Right Award Agreement.

"Substitute Award" has the meaning set forth in Section 4.5.

"Ten Percent Shareholder" means a person who owns (or is deemed to own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or of any of its Affiliates.

"Total Share Reserve" has the meaning set forth in Section 4.1.

#### 3. Administration.

3.1 <u>Authority of Committee</u>. The Plan shall be administered by the Committee or, in the Board's sole discretion, by the Board. Subject to the terms of the Plan, the Committee's charter and Applicable Laws, and in addition to other express powers and authorization conferred by the Plan, the Committee shall have the authority:

(a) to construe and interpret the Plan and apply its provisions;

(b) to promulgate, amend, and rescind rules and regulations relating to the administration of the Plan;

(c) to authorize any person to execute, on behalf of the Company, any instrument required to carry out the purposes of the Plan;

(d) to delegate its authority to one or more Officers of the Company with respect to Awards that do not involve "insiders" within the meaning of Section 16 of the Exchange Act;

(e) to determine when Awards are to be granted under the Plan and the applicable Grant Date;

(f) from time to time to select, subject to the limitations set forth in this Plan, those eligible Award recipients to whom Awards shall be granted;

(g) to determine the number of shares of Common Stock to be made subject to each Award;

(h) to determine whether each Option is to be an Incentive Stock Option or a Non-qualified Stock Option;

(i) to prescribe the terms and conditions of each Award, including, without limitation, the exercise price and medium of payment and vesting provisions, and to specify the provisions of the Award Agreement relating to such grant;

(j) to determine the target number of Performance Shares to be granted pursuant to a Performance Share Award, the performance measures that will be used to establish the Performance Goals, the Performance Period(s) and the number of Performance Shares earned by a Participant;

(k) to amend any outstanding Awards, including for the purpose of modifying the time or manner of vesting, or the term of any outstanding Award; *provided*, *however*, that if any such amendment impairs a Participant's rights or increases a Participant's obligations under his or her Award or creates or increases a Participant's federal income tax liability with respect to an Award, such amendment shall also be subject to the Participant's consent;

(1) to determine the duration and purpose of leaves of absences which may be granted to a Participant without constituting termination of their employment for purposes of the Plan, which periods shall be no shorter than the periods generally applicable to Employees under the Company's employment policies;

(m) to make decisions with respect to outstanding Awards that may become necessary upon a change in corporate control or an event that triggers antidilution adjustments;

(n) to interpret, administer, reconcile any inconsistency in, correct any defect in and/or supply any omission in the Plan and any instrument or agreement relating to, or Award granted under, the Plan; and

(o) to exercise discretion to make any and all other determinations which it determines to be necessary or advisable for the administration of the Plan.

Except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, or exchange of shares), the terms of outstanding Awards may not be amended to reduce the exercise price of outstanding Options or Stock Appreciation Rights or cancel outstanding Options or Stock Appreciation Rights in exchange for cash, other Awards or Options or Stock Appreciation Rights with an exercise price that is less than the exercise price of the original Options or Stock Appreciation Rights without stockholder approval.

3.2 <u>Committee Decisions Final</u>. All decisions made by the Committee pursuant to the provisions of the Plan shall be final and binding on the Company and the Participants, unless such decisions are determined by a court having jurisdiction to be arbitrary and capricious.

3.3 Delegation. The Committee or, if no Committee has been appointed, the Board may delegate administration of the Plan to a committee or committees of one or more members of the Board, and the term "Committee" shall apply to any person or persons to whom such authority has been delegated. The Committee shall have the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board or the Committee shall thereafter be to the committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may abolish the Committee at any time and revest in the Board the administration of the Plan. The members of the Committee shall be appointed by and serve at the pleasure of the Board. From time to time, the Board may increase or decrease the size of the Committee. The Committee shall act pursuant to a vote of the majority of its members or, in the case of a Committee comprised of only two members, the unanimous consent of its members, whether present or not, or by the written consent of the majority of its members and minutes shall be kept of all of its meetings and copies thereof shall be provided to the Board. Subject to the limitations prescribed by the Plan and the Board, the Committee may establish and follow such rules and regulations for the conduct of its business as it may determine to be advisable.

3.4 <u>Committee Composition</u>. Except as otherwise determined by the Board, the Committee shall consist solely of two or more Non-Employee Directors. The Board shall have discretion to determine whether or not it intends to comply with the exemption requirements of Rule 16b-3. However, if the Board intends to satisfy such exemption requirements, with respect to any insider subject to Section 16 of the Exchange Act, the Committee shall be a compensation committee of the Board that at all times consists solely of two or more Non-Employee Directors. Within the scope of such authority, the Board or the Committee may delegate to a committee of one or more members of the Board who are not Non-Employee Directors the authority to grant Awards to eligible persons who are not then subject to Section 16 of the Exchange Act. Nothing herein shall create an inference that an Award is not validly granted under the Plan in the event Awards are granted under the Plan by a compensation committee of the Board that does not at all times consist solely of two or more Non-Employee Directors.

3.5 Indemnification. In addition to such other rights of indemnification as they may have as Directors or members of the Committee, and to the extent allowed by Applicable Laws, the Committee shall be indemnified by the Company against the reasonable expenses, including attorney's fees, actually incurred in connection with any action, suit or proceeding or in connection with any appeal therein, to which the Committee may be party by reason of any action taken or failure to act under or in connection with the Plan or any Award granted under the Plan, and against all amounts paid by the Committee in settlement thereof (*provided, however*, that the settlement has been approved by the Company, which approval shall not be unreasonably withheld) or paid by the Committee in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that such Committee did not act in good faith and in a manner which such person reasonably believed to be in the best interests of the Company, or in the case of a criminal proceeding, had no reason to believe that the conduct complained of was unlawful; *provided, however*, that within 60 days after the institution of any such action, suit or proceeding, such Committee shall, in writing, offer the Company the opportunity at its own expense to handle and defend such action, suit or proceeding.

# 4. Shares Subject to the Plan.

4.1 Subject to adjustment in accordance with Section 14, no more than 900,000 shares of Common Stock shall be available for the grant of Awards under the Plan (the "**Total Share Reserve**"). During the terms of the Awards, the Company shall keep available at all times the number of shares of Common Stock required to satisfy such Awards.

4.2 Shares of Common Stock available for distribution under the Plan may consist, in whole or in part, of authorized and unissued shares, treasury shares or shares reacquired by the Company in any manner.

4.3 Subject to adjustment in accordance with Section 14, no more than 300,000 shares of Common Stock may be issued in the aggregate pursuant to the exercise of Incentive Stock Options (the **"ISO Limit"**).

4.4 Any shares of Common Stock subject to an Award that expires or is canceled, forfeited, or terminated without issuance of the full number of shares of Common Stock to which the Award related shall again be available for issuance of Awards or delivery under the Plan. Any shares of Common Stock subject to an Award under the Plan that are (a) tendered in payment of an Option, (b) delivered or withheld by the Company to satisfy any tax withholding obligation, or (c) covered by a stock-settled Stock Appreciation Right or other Awards that were not issued upon the settlement of the Award shall be added back to the shares of Common Stock available for issuance of Awards or delivery under the Plan and, to the extent permitted under Section 422 of the Code and the regulations promulgated thereunder, to the shares of Common Stock that may be issued as Incentive Stock Options.

4.5 Awards may, in the sole discretion of the Committee, be granted under the Plan in assumption of, or in substitution for, outstanding awards previously granted by an entity acquired by the Company or with which the Company combines ("**Substitute Awards**"). Substitute Awards shall not be counted against the Total Share Reserve; *provided, that*, Substitute Awards issued in connection with the assumption of, or in substitution for, outstanding options intended to qualify as Incentive Stock Options shall be counted against the ISO limit. Subject to applicable stock exchange requirements, available shares under a shareholder-approved plan of an entity directly or indirectly acquired by the Company or with which the Company combines (as appropriately adjusted to reflect such acquisition or transaction) may be used for Awards under the Plan and shall not count toward the Total Share Limit.

4.6 Notwithstanding Section 4.1 above, on the first day of each month commencing January 1, 2023, or the first business day of the calendar year if the first day of the calendar year falls on a Saturday or Sunday, the number of shares eligible for Awards under the Plan will automatically increase in an amount equal to 15% of the total number of shares of common stock outstanding as of December 31<sup>st</sup> of the preceding fiscal year.

### 5. Eligibility.

5.1 <u>Eligibility for Specific Awards</u>. Incentive Stock Options may be granted only to Employees. Awards other than Incentive Stock Options may be granted to Employees, Consultants and Directors and those individuals whom the Committee determines are reasonably expected to become Employees, Consultants and Directors following the Grant Date.

5.2 <u>Ten Percent Shareholders</u>. A Ten Percent Shareholder shall not be granted an Incentive Stock Option unless the Option Exercise Price is at least 110% of the Fair Market Value of the Common Stock on the Grant Date and the Option is not exercisable after the expiration of five years from the Grant Date.

6. Options. Each Option granted under the Plan shall be evidenced by an Award Agreement. Each Option so granted shall be subject to the conditions set forth in this Section 6, and to such other conditions not inconsistent with the Plan as may be reflected in the applicable Award Agreement. All Options shall be separately designated Incentive Stock Options or Non-qualified Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. Notwithstanding the foregoing, the Company shall have no liability to any Participant or any other person if an Option designated as an Incentive Stock Option fails to qualify as such at any time or if an Option is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code and the terms of such Option do not satisfy the requirements of Section 409A of the Code. The provisions of separate Options need not be identical, but each Option shall include (through incorporation of provisions hereof by reference in the Option or otherwise) the substance of each of the following provisions:

6.1 Term. Subject to the provisions of Section 5.2 regarding Ten Percent Shareholders, no Incentive Stock Option shall be exercisable after the expiration of 10 years from the Grant Date. The term of a Non-qualified Stock Option granted under the Plan shall be determined by the Committee; *provided, however*, no Non-qualified Stock Option shall be exercisable after the expiration of 10 years from the Grant Date.

6.2 Exercise Price of an Incentive Stock Option. Subject to the provisions of Section 5.2 regarding Ten Percent Shareholders, the Option Exercise Price of each Incentive Stock Option shall be not less than 100% of the Fair Market Value of the Common Stock subject to the Option on the date of grant. Any Incentive Stock Option granted to an individual who beneficially owns more than 10% of the Company's outstanding Common Stock on the date of grant shall have an exercise price equal to at least 110% of Fair Market Value. Notwithstanding the foregoing, an Incentive Stock Option may be granted with an Option Exercise Price lower than that set forth in the preceding sentence if such Option is granted pursuant to an assumption or substitution for another option in a manner satisfying the provisions of Section 424(a) of the Code.

6.3 Exercise Price of a Non-qualified Stock Option. The Option Exercise Price of each Non-qualified Stock Option shall be not less than 100% of the Fair Market Value of the Common Stock subject to the Option on the Grant Date. Notwithstanding the foregoing, a Non-qualified Stock Option may be granted with an Option Exercise Price lower than that set forth in the preceding sentence if such Option is granted pursuant to an assumption or substitution for another option in a manner satisfying the provisions of Section 409A of the Code.

6.4 <u>Consideration</u>. The Option Exercise Price of Common Stock acquired pursuant to an Option shall be paid, to the extent permitted by applicable statutes and regulations, either (a) in cash or by certified or bank check at the time the Option is exercised or (b) in the discretion of the Committee, upon such terms as the Committee shall approve, the Option Exercise Price may be paid: (i) by delivery to the Company of other Common Stock, duly endorsed for transfer to the Company, with a Fair Market Value on the date of delivery specific shares of Common Stock that have an aggregate Fair Market Value on the date of attestation equal to the Option Exercise Price (or portion thereof) due for the number of shares being acquired, or by means of attestation whereby the Participant identifies for delivery specific shares of Common Stock that have an aggregate Fair Market Value on the date of attestation equal to the Option Exercise Price (or portion thereof) due for the number of shares thereby purchased and the number of identified attestation shares of Common Stock; (ii) a "cashless" exercise program established with a broker; (iii) by reduction in the number of shares of Common Stock otherwise deliverable upon exercise of such Option with a Fair Market Value equal to the Committee. Unless otherwise specifically provided in the Option, the exercise price of Common Stock acquired pursuant to an Option that is paid by delivery (or attestation) to the Company of other Common Stock acquired, directly or indirectly from the Company, shall be paid only by shares of the Common Stock of the Company that have been held for more than six months (or such longer or shorter period of time required to avoid a charge to earnings for financial accounting purposes). Notwithstanding the foregoing, during any period for which the Common Stock is publicly traded (i.e., the Common Stock is listed on any established stock exchange or a national market system) an exercise by a Director or Officer that involves or may involve a direct or i

6.5 <u>Transferability of an Incentive Stock Option</u>. An Incentive Stock Option shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Optionholder only by the Optionholder. Notwithstanding the foregoing, the Optionholder may, by delivering written notice to the Company, in a form satisfactory to the Company, designate a third party who, in the event of the death of the Optionholder, shall thereafter be entitled to exercise the Option.

6.6 <u>Transferability of a Non-qualified Stock Option</u>. A Non-qualified Stock Option may, in the sole discretion of the Committee, be transferable to a Permitted Transferee, upon written approval by the Committee to the extent provided in the Award Agreement. If the Non-qualified Stock Option does not provide for transferability, then the Non-qualified Stock Option shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Optionholder only by the Optionholder. Notwithstanding the foregoing, the Optionholder may, by delivering written notice to the Company, in a form satisfactory to the Company, designate a third party who, in the event of the death of the Optionholder, shall thereafter be entitled to exercise the Option.

6.7 <u>Vesting of Options</u>. Each Option may, but need not, vest and therefore become exercisable in periodic installments that may, but need not, be equal. The Option may be subject to such other terms and conditions on the time or times when it may be exercised (which may be based on performance or other criteria) as the Committee may deem appropriate. The vesting provisions of individual Options may vary. No Option may be exercised for a fraction of a share of Common Stock. The Committee may, but shall not be required to, provide for an acceleration of vesting and exercisability in the terms of any Award Agreement upon the occurrence of a specified event.

6.8 Termination of Continuous Service. Unless otherwise provided in an Award Agreement or in an employment agreement the terms of which have been approved by the Committee, in the event an Optionholder's Continuous Service terminates (other than upon the Optionholder's death or Disability), the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of termination) but only within such period of time ending on the earlier of (a) the date three months following the termination of the Optionholder's Continuous Service or (b) the expiration of the term of the Option as set forth in the Award Agreement; *provided that*, if the termination of Continuous Service is by the Company for Cause, all outstanding Options (whether or not vested) shall immediately terminate and cease to be exercise his or her Option within the time specified in the Award Agreement, the Option shall terminate.

6.9 Extension of Termination Date. An Optionholder's Award Agreement may also provide that if the exercise of the Option following the termination of the Optionholder's Continuous Service for any reason would be prohibited at any time because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act or any other state or federal securities law or the rules of any securities exchange or interdealer quotation system, then the Option shall terminate on the earlier of (a) the expiration of the term of the Option in accordance with Section 6.1 or (b) the expiration of a period after termination of the Participant's Continuous Service that is three months after the end of the period during which the exercise of the Option would be in violation of such registration or other securities law requirements.

6.10 <u>Disability of Optionholder</u>. Unless otherwise provided in an Award Agreement, in the event that an Optionholder's Continuous Service terminates as a result of the Optionholder's Disability, the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of termination), but only within such period of time ending on the earlier of (a) the date 12 months following such termination or (b) the expiration of the term of the Optionholder does not exercise his or her Option within the time specified herein or in the Award Agreement, the Option shall terminate.

6.11 <u>Death of Optionholder</u>. Unless otherwise provided in an Award Agreement, in the event an Optionholder's Continuous Service terminates as a result of the Optionholder's death, then the Option may be exercised (to the extent the Optionholder was entitled to exercise such Option as of the date of death) by the Optionholder's estate, by a person who acquired the right to exercise the Option by bequest or inheritance or by a person designated to exercise the Option upon the Optionholder's death, but only within the period ending on the earlier of (a) the date 12 months following the date of death or (b) the expiration of the term of such Option as set forth in the Award Agreement. If, after the Optionholder's death, the Option is not exercised within the time specified herein or in the Award Agreement, the Option shall terminate.

6.12 Incentive Stock Option \$100,000 Limitation. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and its Affiliates) exceeds \$100,000, the Options or portions thereof which exceed such limit (according to the order in which they were granted) shall be treated as Non-qualified Stock Options.

7. <u>Stock Appreciation Rights</u>. Each Stock Appreciation Right granted under the Plan shall be evidenced by an Award Agreement. Each Stock Appreciation Right so granted shall be subject to the conditions set forth in this Section 7, and to such other conditions not inconsistent with the Plan as may be reflected in the applicable Award Agreement. Stock Appreciation Rights may be granted alone ("**Free Standing Rights**") or in tandem with an Option granted under the Plan ("**Related Rights**").

7.1 <u>Grant Requirements for Related Rights</u>. Any Related Right that relates to a Non-qualified Stock Option may be granted at the same time the Option is granted or at any time thereafter but before the exercise or expiration of the Option. Any Related Right that relates to an Incentive Stock Option must be granted at the same time the Incentive Stock Option is granted.

7.2 Term. The term of a Stock Appreciation Right granted under the Plan shall be determined by the Committee; *provided, however*, no Stock Appreciation Right shall be exercisable later than the tenth (10<sup>th</sup>) anniversary of the Grant Date.

7.3 Vesting of SARs. Each Stock Appreciation Right may, but need not, vest and therefore become exercisable in periodic installments that may, but need not, be equal. The Stock Appreciation Right may be subject to such other terms and conditions on the time or times when it may be exercised as the Committee may deem appropriate. The vesting provisions of individual Stock Appreciation Rights may vary. No Stock Appreciation Right may be exercised for a fraction of a share of Common Stock. The Committee may, but shall not be required to, provide for an acceleration of vesting and exercisability in the terms of any Stock Appreciation Right upon the occurrence of a specified event.

7.4 Exercise and Payment. Upon exercise of a Stock Appreciation Right, the holder shall be entitled to receive from the Company an amount equal to the number of shares of Common Stock subject to the Stock Appreciation Right that is being exercised multiplied by the excess of (i) the Fair Market Value of a share of Common Stock on the date the Award is exercised, over (ii) the exercise price specified in the Stock Appreciation Right or related Option. Payment with respect to the exercise of a Stock Appreciation Right shall be made on the date of exercise. Payment shall be made in the form of shares of Common Stock (with or without restrictions as to substantial risk of forfeiture and transferability, as determined by the Committee in its sole discretion), cash or a combination thereof, as determined by the Committee.

7.5 Exercise Price. The exercise price of a Free Standing Right shall be determined by the Committee, but shall not be less than 100% of the Fair Market Value of one share of Common Stock on the Grant Date of such Stock Appreciation Right. A Related Right granted simultaneously with or subsequent to the grant of an Option and in conjunction therewith or in the alternative thereto shall have the same exercise price as the related Option, shall be transferable only upon the same terms and conditions as the related Option, and shall be exercisable only to the same extent as the related Option; *provided, however*, that a Stock Appreciation Right, by its terms, shall be exercisable only when the Fair Market Value per share of Common Stock subject to the Stock Appreciation Right and related Option exceeds the exercise price per share thereof and no Stock Appreciation Rights may be granted in tandem with an Option unless the Committee determines that the requirements of Section 7.1 are satisfied.

7.6 <u>Reduction in the Underlying Option Shares</u>. Upon any exercise of a Related Right, the number of shares of Common Stock for which any related Option shall be exercisable shall be reduced by the number of shares for which the Stock Appreciation Right has been exercised. The number of shares of Common Stock for which a Related Right shall be exercisable shall be reduced upon any exercise of any related Option by the number of shares of Common Stock for which such Option has been exercised.

8. <u>Restricted Awards</u>. A Restricted Award is an Award of actual shares of Common Stock ("**Restricted Stock**") or hypothetical Common Stock units ("**Restricted Stock Units**") having a value equal to the Fair Market Value of an identical number of shares of Common Stock, which may, but need not, provide that such Restricted Award may not be sold, assigned, transferred or otherwise disposed of, pledged or hypothecated as collateral for a loan or as security for the performance of any obligation or for any other purpose for such period (the "**Restricted Period**") as the Committee shall determine. Each Restricted Award granted under the Plan shall be evidenced by an Award Agreement. Each Restricted Award so granted shall be subject to the conditions set forth in this Section 8, and to such other conditions not inconsistent with the Plan as may be reflected in the applicable Award Agreement.

### 8.1 Restricted Stock and Restricted Stock Units.

(a) Each Participant granted Restricted Stock shall execute and deliver to the Company an Award Agreement with respect to the Restricted Stock setting forth the restrictions and other terms and conditions applicable to such Restricted Stock. If the Committee determines that the Restricted Stock shall be held by the Company or in escrow rather than delivered to the Participant pending the release of the applicable restrictions, the Committee may require the Participant to additionally execute and deliver to the Company (A) an escrow agreement satisfactory to the Committee, if applicable and (B) the appropriate blank stock power with respect to the Restricted Stock covered by such agreement. If a Participant fails to execute an agreement evidencing an Award of Restricted Stock and, if applicable, an escrow agreement and stock power, the Award shall be null and void. Subject to the restrictions set forth in the Award, the Participant generally shall have the rights and privileges of a shareholder as to such Restricted Stock, including the right to vote such Restricted Stock and the right to receive dividends; *provided that*, any cash dividends and stock dividends with respect to the Restricted Stock shall be withheld by the Committee. The cash dividends or stock dividends so withheld by the Committee and attributable to any particular share of Restricted Stock (and earnings thereon, if applicable) shall be distributed to the Participant in cash or, at the discretion of the Committee, in shares of Common Stock having a Fair Market Value equal to the amount of such dividends, if applicable, upon the release of restrictions on such share and, if such share is forfeited, the Participant shall have no right to such dividends.

(b) The terms and conditions of a grant of Restricted Stock Units shall be reflected in an Award Agreement. No shares of Common Stock shall be issued at the time a Restricted Stock Unit is granted, and the Company will not be required to set aside funds for the payment of any such Award. A Participant shall have no voting rights with respect to any Restricted Stock Units granted hereunder. The Committee may also grant Restricted Stock Units with a deferral feature, whereby settlement is deferred beyond the vesting date until the occurrence of a future payment date or event set forth in an Award Agreement ("Deferred Stock Units"). At the discretion of the Committee, each Restricted Stock Unit or Deferred Stock Unit (representing one share of Common Stock) may be credited with an amount equal to the cash and stock dividends paid by the Company in respect of one share of Common Stock ("Dividend Equivalents"). Dividend Equivalents shall be withheld by the Company and credited to the Participant's account, and interest may be credited on the amount of cash Dividend Equivalents credited to the Participant's account at a rate and subject to such terms as determined by the Committee. Dividend Equivalents credited to a Participant's account and attributable to any particular Restricted Stock Unit or Deferred Stock Unit and, if such Restricted Stock Unit or Deferred Stock Unit is forfeited, the Participant upon settlement of such Restricted Stock Unit or Deferred Stock Unit is forfeited, the Participant shall have no right to such Dividend Equivalents. Dividend Equivalents may, if so determined by the Committee, be deemed re-invested in additional Restricted Stock Units or Deferred Stock Units based on the Fair Market Value of a share of Common Stock on the applicable dividend payment date and rounded down to the nearest whole share.

#### 8.2 Restrictions.

(a) Restricted Stock awarded to a Participant shall be subject to the following restrictions until the expiration of the Restricted Period, and to such other terms and conditions as may be set forth in the applicable Award Agreement: (A) if an escrow arrangement is used, the Participant shall not be entitled to delivery of the stock certificate; (B) the shares shall be subject to the restrictions on transferability set forth in the Award Agreement; (C) the shares shall be subject to forfeiture to the extent provided in the applicable Award Agreement; and (D) to the extent such shares are forfeited, the stock certificates shall be returned to the Company, and all rights of the Participant to such shares and as a shareholder with respect to such shares shall terminate without further obligation on the part of the Company.

(b) Restricted Stock Units and Deferred Stock Units awarded to any Participant shall be subject to (A) forfeiture until the expiration of the Restricted Period, and satisfaction of any applicable Performance Goals during such period, to the extent provided in the applicable Award Agreement, and to the extent such Restricted Stock Units or Deferred Stock Units are forfeited, all rights of the Participant to such Restricted Stock Units or Deferred Stock Units shall terminate without further obligation on the part of the Company and (B) such other terms and conditions as may be set forth in the applicable Award Agreement.

(c) The Committee shall have the authority to remove any or all of the restrictions on the Restricted Stock, Restricted Stock Units and Deferred Stock Units whenever it may determine that, by reason of changes in Applicable Laws or other changes in circumstances arising after the date the Restricted Stock or Restricted Stock Units or Deferred Stock Units are granted, such action is appropriate.

8.3 <u>Restricted Period</u>. With respect to Restricted Awards, the Restricted Period shall commence on the Grant Date and end at the time or times set forth on a schedule established by the Committee in the applicable Award Agreement. No Restricted Award may be granted or settled for a fraction of a share of Common Stock. The Committee may, but shall not be required to, provide for an acceleration of vesting in the terms of any Award Agreement upon the occurrence of a specified event.

8.4 Delivery of Restricted Stock and Settlement of Restricted Stock Units. Upon the expiration of the Restricted Period with respect to any shares of Restricted Stock, the restrictions set forth in Section 8.2 and the applicable Award Agreement shall be of no further force or effect with respect to such shares, except as set forth in the applicable Award Agreement. If an escrow arrangement is used, upon such expiration, the Company shall deliver to the Participant, or his or her beneficiary, without charge, the stock certificate evidencing the shares of Restricted Stock which have not then been forfeited and with respect to which the Restricted Period has expired (to the nearest full share) and any cash dividends or stock dividends credited to the Participant's account with respect to such Restricted Stock and the interest thereon, if any. Upon the expiration of the Restricted Period with respect to any outstanding Restricted Stock Units, or at the expiration of the deferral period with respect to any outstanding Deferred Stock Units, the Company shall deliver to the Participant, or his or her beneficiary, without charge, one share of Common Stock for each such outstanding vested Restricted Stock Unit or Deferred Stock Unit ("**Vested Unit**") and cash equal to any Dividend Equivalents credited with respect to each such Dividend Equivalents and the interest thereon, if any; *provided, however*, that, if explicitly provided in the applicable Award Agreement, the Committee may, in its sole discretion, elect to pay cash or part cash and part Common Stock in lieu of delivering only shares of Common Stock for Vested Units. If a cash payment is made in lieu of delivering shares of Common Stock, the amount of such payment shall be equal to the Fair Market Value of the Common Stock as of the date on which the Restricted Period lapsed in the case of Restricted Stock Units, or the delivery date in the case of Deferred Stock Units, or the delivery date in the case of Deferred Stock Units, or the delivery date in the case of

8.5 Stock Restrictions. Each certificate representing Restricted Stock awarded under the Plan shall bear a legend in such form as the Company deems appropriate.

9. <u>Performance Share Awards</u>. Each Performance Share Award granted under the Plan shall be evidenced by an Award Agreement. Each Performance Share Award so granted shall be subject to the conditions set forth in this Section 9, and to such other conditions not inconsistent with the Plan as may be reflected in the applicable Award Agreement. The Committee shall have the discretion to determine: (i) the number of shares of Common Stock or stock-denominated units subject to a Performance Share Award granted to any Participant; (ii) the Performance Period applicable to any Award; (iii) the conditions that must be satisfied for a Participant to earn an Award; and (iv) the other terms, conditions and restrictions of the Award.

9.1 Earning Performance Share Awards. The number of Performance Shares earned by a Participant will depend on the extent to which the performance goals established by the Committee are attained within the applicable Performance Period, as determined by the Committee.

10. <u>Other Equity-Based Awards and Cash Awards</u>. The Committee may grant Other Equity-Based Awards, either alone or in tandem with other Awards, in such amounts and subject to such conditions as the Committee shall determine in its sole discretion. Each Equity-Based Award shall be evidenced by an Award Agreement and shall be subject to such conditions, not inconsistent with the Plan, as may be reflected in the applicable Award Agreement. The Committee may grant Cash Awards in such amounts and subject to such Performance Goals, other vesting conditions, and such other terms as the Committee determines in its discretion. Cash Awards shall be evidenced in such form as the Committee may determine.

11. <u>Securities Law Compliance</u>. Each Award Agreement shall provide that no shares of Common Stock shall be purchased or sold thereunder unless and until (a) any then applicable requirements of state or federal laws and regulatory agencies have been fully complied with to the satisfaction of the Company and its counsel and (b) if required to do so by the Company, the Participant has executed and delivered to the Company a letter of investment intent in such form and containing such provisions as the Committee may require. The Company shall use reasonable efforts to seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Awards and to issue and sell shares of Common Stock upon exercise of the Awards; *provided, however*, that this undertaking shall not require the Company is unable to obtain from any such regulatory commission or agency the authority which counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Awards unless and until such authority is obtained.

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12. Use of Proceeds from Stock. Proceeds from the sale of Common Stock pursuant to Awards, or upon exercise thereof, shall constitute general funds of the Company.

#### 13. Miscellaneous.

13.1 <u>Acceleration of Exercisability and Vesting</u>. The Committee shall have the power to accelerate the time at which an Award may first be exercised or the time during which an Award or any part thereof will vest in accordance with the Plan, notwithstanding the provisions in the Award stating the time at which it may first be exercised or the time during which it will vest.

13.2 <u>Shareholder Rights</u>. Except as provided in the Plan, no Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Award unless and until such Participant has satisfied all requirements for exercise of the Award pursuant to its terms and no adjustment shall be made for, nor shall any Participant be entitled to receive, any dividends (ordinary or extraordinary, whether in cash, securities or other property) or distributions of other rights for which the record date is prior to the date the certificate representing Common Stock issuable pursuant to an Award is actually issued, except as provided in Section 14 hereof.

13.3 <u>No Employment or Other Service Rights</u>. Nothing in the Plan or any instrument executed or Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Award was granted or shall affect the right of the Company or an Affiliate to terminate (a) the employment of an Employee with or without notice and with or without Cause or (b) the service of a Director pursuant to the By-laws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

13.4 <u>Transfer; Approved Leave of Absence</u>. For purposes of the Plan, no termination of employment by an Employee shall be deemed to result from either (a) a transfer of employment to the Company from an Affiliate or from the Company to an Affiliate, or from one Affiliate to another, or (b) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the Employee's right to reemployment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Committee otherwise so provides in writing, in either case, except to the extent inconsistent with Section 409A of the Code if the applicable Award is subject thereto.

13.5 <u>Withholding Obligations</u>. To the extent provided by the terms of an Award Agreement and subject to the discretion of the Committee, the Participant may satisfy any federal, state or local tax withholding obligation relating to the exercise or acquisition of Common Stock under an Award by any of the following means (in addition to the Company's right to withhold from any compensation paid to the Participant by the Company) or by a combination of such means: (a) tendering a cash payment; (b) authorizing the Company to withhold shares of Common Stock from the shares of Common Stock otherwise issuable to the Participant as a result of the exercise or acquisition of Common Stock under the Award, *provided, however*, that no shares of Common Stock are withheld with a value exceeding the maximum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); or (c) delivering to the Company previously owned and unencumbered shares of Common Stock of the Company.

14. <u>Adjustments upon Changes in Stock</u>. In the event of changes in the outstanding Common Stock or in the capital structure of the Company by reason of any stock or extraordinary cash dividend, stock split, reverse stock split, an extraordinary corporate transaction such as any recapitalization, reorganization, merger, consolidation, combination, exchange, or other relevant change in capitalization occurring after the Grant Date of any Award, Awards granted under the Plan and any Award Agreements, the exercise price of Options and Stock Appreciation Rights, the Performance Goals to which Performance Share Awards and Cash Awards are subject, the maximum number of shares of Common Stock subject to all Awards stated in Section 4 will be equitably adjusted or substituted, as to the number, price or kind of a share of Common Stock or other consideration subject to such Awards to the extent necessary to preserve the economic intent of such Award. In the case of adjustments made pursuant to this Section 14, unless the Committee specifically determines that such adjustment is in the best interests of the Company or its Affiliates, the Committee shall, in the case of Incentive Stock Options, ensure that any adjustments under this Section 14 will not constitute a modification, extension or renewal of the Incentive Stock Options within the meaning of Section 424(h) (3) of the Code and in the case of Non-qualified Stock Options, ensure that any adjustments under this Section 409A of the Code. Any adjustments made under this Section 14 shall be made in a manner which does not adversely affect the exemption provided pursuant to Rule 16b-3 under the Exchange Act. The Company shall give each Participant notice of an adjustment hereunder and, upon notice, such adjustment shall be conclusive and binding for all purposes.

### 15. Effect of Change in Control.

15.1 Unless otherwise provided in an Award Agreement, notwithstanding any provision of the Plan to the contrary:

(a) In the event of a Change in Control, all outstanding Options and Stock Appreciation Rights shall become immediately exercisable with respect to 100% of the shares subject to such Options or Stock Appreciation Rights, and/or the Restricted Period shall expire immediately with respect to 100% of the outstanding shares of Restricted Stock or Restricted Stock Units.

(b) With respect to Performance Share Awards and Cash Awards, in the event of a Change in Control, all Performance Goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions will be deemed met.

15.2 In addition, in the event of a Change in Control, the Committee may in its discretion and upon at least 10 days' advance notice to the affected persons, cancel any outstanding Awards and pay to the holders thereof, in cash or stock, or any combination thereof, the value of such Awards based upon the price per share of Common Stock received or to be received by other shareholders of the Company in the event. In the case of any Option or Stock Appreciation Right with an exercise price (or SAR Exercise Price in the case of a Stock Appreciation Right) that equals or exceeds the price paid for a share of Common Stock in connection with the Change in Control, the Committee may cancel the Option or Stock Appreciation Right without the payment of consideration therefor.

15.3 The obligations of the Company under the Plan shall be binding upon any successor corporation or organization resulting from the merger, consolidation or other reorganization of the Company, or upon any successor corporation or organization succeeding to all or substantially all of the assets and business of the Company and its Affiliates, taken as a whole.

### 16. Amendment of the Plan and Awards.

16.1 <u>Amendment of Plan</u>. The Board at any time, and from time to time, may amend or terminate the Plan. However, except as provided in Section 14 relating to adjustments upon changes in Common Stock and Section 16.3, no amendment shall be effective unless approved by the shareholders of the Company to the extent shareholder approval is necessary to satisfy any Applicable Laws. At the time of such amendment, the Board shall determine, upon advice from counsel, whether such amendment will be contingent on shareholder approval.



16.2 Shareholder Approval. The Board may, in its sole discretion, submit any other amendment to the Plan for shareholder approval.

16.3 <u>Contemplated Amendments</u>. It is expressly contemplated that the Board may amend the Plan in any respect the Board deems necessary or advisable to provide eligible Employees, Consultants and Directors with the maximum benefits provided or to be provided under the provisions of the Code and the regulations promulgated thereunder relating to Incentive Stock Options or to the nonqualified deferred compensation provisions of Section 409A of the Code and/or to bring the Plan and/or Awards granted under it into compliance therewith.

16.4 No Impairment of Rights. Rights under any Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (a) the Company requests the consent of the Participant and (b) the Participant consents in writing.

16.5 <u>Amendment of Awards</u>. The Committee at any time, and from time to time, may amend the terms of any one or more Awards; *provided, however*, that the Committee may not affect any amendment which would otherwise constitute an impairment of the rights under any Award unless (a) the Company requests the consent of the Participant and (b) the Participant consents in writing.

### 17. General Provisions.

17.1 Forfeiture Events. The Committee may specify in an Award Agreement that the Participant's rights, payments and benefits with respect to an Award shall be subject to reduction, cancellation, forfeiture or recoupment upon the occurrence of certain events, in addition to applicable vesting conditions of an Award. Such events may include, without limitation, breach of non-competition, non-solicitation, confidentiality, or other restrictive covenants that are contained in the Award Agreement or otherwise applicable to the Participant, a termination of the Participant's Continuous Service for Cause, or other conduct by the Participant that is detrimental to the business or reputation of the Company and/or its Affiliates.

17.2 <u>Clawback</u>. Notwithstanding any other provisions in this Plan, the Company may cancel any Award, require reimbursement of any Award by a Participant, and effect any other right of recoupment of equity or other compensation provided under the Plan in accordance with any Company policies that may be adopted and/or modified from time to time (**\*Clawback Policy**"). In addition, a Participant may be required to repay to the Company previously paid compensation, whether provided pursuant to the Plan or an Award Agreement, in accordance with the Clawback Policy. By accepting an Award, the Participant is agreeing to be bound by the Clawback Policy, as in effect or as may be adopted and/or modified from time to time by the Company in its discretion (including, without limitation, to comply with applicable law or stock exchange listing requirements).

17.3 Other Compensation Arrangements. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, subject to shareholder approval if such approval is required; and such arrangements may be either generally applicable or applicable only in specific cases.

17.4 <u>Sub-Plans</u>. The Committee may from time to time establish sub-plans under the Plan for purposes of satisfying securities, tax or other laws of various jurisdictions in which the Company intends to grant Awards. Any sub-plans shall contain such limitations and other terms and conditions as the Committee determines are necessary or desirable. All sub-plans shall be deemed a part of the Plan, but each sub-plan shall apply only to the Participants in the jurisdiction for which the sub-plan was designed.

17.5 Deferral of Awards. The Committee may establish one or more programs under the Plan to permit selected Participants the opportunity to elect to defer receipt of consideration upon exercise of an Award, satisfaction of performance criteria, or other event that absent the election would entitle the Participant to payment or receipt of shares of Common Stock or other consideration under an Award. The Committee may establish the election procedures, the timing of such elections, the mechanisms for payments of, and accrual of interest or other earnings, if any, on amounts, shares or other consideration so deferred, and such other terms, conditions, rules and procedures that the Committee deems advisable for the administration of any such deferral program. Any such deferral program must comply with Section 409A.

17.6 Unfunded Plan. The Plan shall be unfunded. Neither the Company, the Board nor the Committee shall be required to establish any special or separate fund or to segregate any assets to assure the performance of its obligations under the Plan.

17.7 Recapitalizations. Each Award Agreement shall contain provisions required to reflect the provisions of Section 14.

17.8 <u>Delivery</u>. Upon exercise of a right granted under this Plan, the Company shall issue Common Stock or pay any amounts due within a reasonable period of time thereafter. Subject to any statutory or regulatory obligations the Company may otherwise have, for purposes of this Plan, 30 days shall be considered a reasonable period of time.

17.9 No Fractional Shares. No fractional shares of Common Stock shall be issued or delivered pursuant to the Plan. The Committee shall determine whether cash, additional Awards or other securities or property shall be issued or paid in lieu of fractional shares of Common Stock or whether any fractional shares should be rounded, forfeited or otherwise eliminated.

17.10 Other Provisions. The Award Agreements authorized under the Plan may contain such other provisions not inconsistent with this Plan, including, without limitation, restrictions upon the exercise of Awards, as the Committee may deem advisable.

17.11 Section 409A. The Plan is intended to comply with Section 409A of the Code to the extent subject thereto, and, accordingly, to the maximum extent permitted, the Plan shall be interpreted and administered to be in compliance therewith. Any payments described in the Plan that are due within the "short-term deferral period" as defined in Section 409A of the Code shall not be treated as deferred compensation unless Applicable Laws require otherwise. Notwithstanding anything to the contrary in the Plan, to the extent required to avoid accelerated taxation and tax penalties under Section 409A of the Code, amounts that would otherwise be payable and benefits that would otherwise be provided pursuant to the Plan during the six (6) month period immediately following the Participant's termination of Continuous Service shall instead be paid on the first payroll date after the six-month anniversary of the Participant's separation from service (or the Participant's death, if earlier). Notwithstanding the foregoing, neither the Company nor the Committee shall have any obligation to take any action to prevent the assessment of any additional tax or penalty on any Participant under Section 409A of the Code and neither the Company nor the Committee will have any liability to any Participant for such tax or penalty.

17.12 <u>Disqualifying Dispositions</u>. Any Participant who shall make a "disposition" (as defined in Section 424 of the Code) of all or any portion of shares of Common Stock acquired upon exercise of an Incentive Stock Option within two years from the Grant Date of such Incentive Stock Option or within one year after the issuance of the shares of Common Stock acquired upon exercise of such Incentive Stock Option (a "**Disqualifying Disposition**") shall be required to immediately advise the Company in writing as to the occurrence of the sale and the price realized upon the sale of such shares of Common Stock.

17.13 Section 16. It is the intent of the Company that the Plan satisfy, and be interpreted in a manner that satisfies, the applicable requirements of Rule 16b-3 as promulgated under Section 16 of the Exchange Act so that Participants will be entitled to the benefit of Rule 16b-3, or any other rule promulgated under Section 16 of the Exchange Act, and will not be subject to short-swing liability under Section 16 of the Exchange Act. Accordingly, if the operation of any provision of the Plan would conflict with the intent expressed in this Section 17.13, such provision to the extent possible shall be interpreted and/or deemed amended so as to avoid such conflict.

17.14 <u>Beneficiary Designation</u>. Each Participant under the Plan may from time to time name any beneficiary or beneficiaries by whom any right under the Plan is to be exercised in case of such Participant's death. Each designation will revoke all prior designations by the same Participant, shall be in a form reasonably prescribed by the Committee and shall be effective only when filed by the Participant in writing with the Company during the Participant's lifetime.

17.15 Expenses. The costs of administering the Plan shall be paid by the Company.

17.16 Severability. If any of the provisions of the Plan or any Award Agreement is held to be invalid, illegal or unenforceable, whether in whole or in part, such provision shall be deemed modified to the extent, but only to the extent, of such invalidity, illegality or unenforceability and the remaining provisions shall not be affected thereby.

17.17 Headings. The headings in the Plan are for purposes of convenience only and are not intended to define or limit the construction of the provisions hereof.

17.18 Non-Uniform Treatment. The Committee's determinations under the Plan need not be uniform and may be made by it selectively among persons who are eligible to receive, or actually receive, Awards. Without limiting the generality of the foregoing, the Committee shall be entitled to make non-uniform and selective determinations, amendments and adjustments, and to enter into non-uniform and selective Award Agreements.

18. Effective Date of Plan. The Plan shall become effective as of the Effective Date, but no Award shall be exercised (or, in the case of a stock Award, shall be granted) unless and until the Plan has been approved by the shareholders of the Company, which approval shall be within twelve (12) months before or after the date the Plan is adopted by the Board.

19. <u>Termination or Suspension of the Plan</u>. The Plan shall terminate automatically on the tenth (10<sup>th</sup>) anniversary of the Effective Date. No Award shall be granted pursuant to the Plan after such date, but (subject to Sections 5.2, 6.1 and 7.2) Awards theretofore granted may extend beyond that date. The Board may suspend or terminate the Plan at any earlier date pursuant to Section 16.1 hereof. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

20. Choice of Law. The law of the State of Delaware shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to such state's conflict of law rules.



# CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation in Registration Statement on Form S-1 No. 333-267951 of our report dated April 25, 2023, of BullFrog AI Holdings, Inc. relating to the audit of the consolidated financial statements as of December 31, 2022 and 2021, and for the periods then ended, and the reference to our firm under the caption "Experts" in the Registration Statement.

/s/ M&K CPA's, PLLC

Houston, TX April 25, 2023

#### Certification of Principal Executive Officer of BULLFROG AI HOLDINGS, INC. Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Vininder Singh, certify that:

- 1. I have reviewed this annual report on Form 10-K 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 annual 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(s) 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 annual 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 annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) 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 function):
  - 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.

Dated: April 25, 2023

By: /s/ Vininder Singh

Vininder Singh Chief Executive Officer (Principal Executive Officer)

#### Certification of Principal Financial Officer of BULLFROG AI HOLDINGS, INC. Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Dane Saglio, certify that:

- 1. I have reviewed this annual report on Form 10-K 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 annual 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(s) 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 annual 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 annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) 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 function):
  - 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.

Dated: April 25, 2023

By: /s/ Dane Saglio

Dane Saglio Chief Financial Officer (Principal Financial and Accounting Officer)

#### CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of Bullfrog AI Holdings, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

Dated: April 25, 2023

By: /s/ Vininder Singh

Vininder Singh Chief Executive Officer (Principal Executive Officer)

Dated: April 25, 2023

By: /s/ Dane Saglio

Dane Saglio Chief Financial Officer (Principal Financial and Accounting Officer)