

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

AMENDMENT NO. 1
to

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ZIVO BIOSCIENCE, INC.

(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of
incorporation or organization)

2836
(Primary Standard Industrial
Classification Code Number)

87-0699977
(I.R.S. Employer
Identification Number)

**21 East Long Lake Road, Suite 100,
Bloomfield Hills, Michigan 48304
(248) 452-9866**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Keith R. Marchiando
Chief Financial Officer
Zivo Bioscience, Inc.
21 East Long Lake Road, Suite 100,
Bloomfield Hills, Michigan 48304
(248) 452-9866**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS, SUBJECT TO COMPLETION, DATED OCTOBER 31, 2023

Zivo Bioscience, Inc.



Up to 2,930,402 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 2,930,402 Shares of Common Stock
Common Warrants to Purchase up to 2,930,402 Shares of Common Stock
Up to 2,930,402 Shares of Common Stock Underlying the Pre-Funded Warrants
Up to 2,930,402 Shares of Common Stock Underlying the Common Warrants

This is a reasonable best efforts offering of up to 2,930,402 shares of common stock, \$0.001 par value per share (the "Common Stock"), together with common warrants (the "Common Warrants") to purchase up to 2,930,402 shares of Common Stock at an assumed initial exercise price of \$2.73 per share. Each share of our Common Stock is being sold together with a Common Warrant to purchase up to 2,930,402 shares of our Common Stock in the offering of Zivo Bioscience, Inc., a Nevada corporation (the "Company"), on a best efforts basis (this "Offering") at an assumed public offering price of \$2.73 per Common Stock (which is based on the official closing price on the Nasdaq Stock Market LLC ("Nasdaq") of our Common Stock of \$2.73 on October 27, 2023). The Common Warrants offered hereby may be exercised from time to time beginning on the date of issuance and expire five years from the date of issuance. The shares of our Common Stock and/or Pre-Funded Warrants and the Common Warrants are immediately separable and will be issued separately in this Offering.

We are also offering pre-funded warrants (the "Pre-Funded Warrants") to purchase up to 2,930,402 shares of Common Stock to those purchasers whose purchase of shares of Common Stock in this Offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this Offering, in lieu of shares of Common Stock that would result in beneficial ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock. The purchase price of each Pre-Funded Warrant is equal to the purchase price of the shares of Common Stock in this Offering, minus \$0.001, and the remaining exercise price of each Pre-Funded Warrant will equal \$0.001 per share. Each Pre-Funded Warrant is being offered together with the Common Warrants. The Pre-Funded Warrants and Common Warrants are immediately separable and will be issued separately in this Offering but must be purchased together in this Offering. For each Pre-Funded Warrant that we sell, the number of shares of Common Stock we are offering will be reduced on a one-for-one basis. See "*Description of the Securities*" in this prospectus for more information.

Pursuant to this prospectus, we are also offering the shares of Common Stock issuable upon the exercise of Pre-Funded Warrants and Common Warrants offered hereby. These securities are being sold in this Offering to certain purchasers under a securities purchase agreement dated , 2023 between us and such purchasers.

The shares of our Common Stock, Pre-Funded Warrants and Common Warrants being offered will be sold in a single closing. The offering of the shares of our common stock, Pre-Funded Warrants and Common Warrants will terminate no later than December 31, 2023; however, the shares of our Common Stock underlying the Pre-Funded Warrants and the Common Warrants will be offered on a continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"). The shares issuable upon exercise of the Pre-Funded Warrants or Common Warrants will be issued upon the exercise thereof.

There is no minimum number of Common Stock or minimum aggregate amount of proceeds for this Offering to close. Because there is no minimum number of securities or minimum aggregate amount of proceeds for this Offering to close, we may sell fewer than all of the securities offered hereby, and investors in this Offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. We expect this Offering to be completed not later than two business days following the commencement of this Offering and we will deliver all securities to be issued in connection with this Offering delivery versus payment (“DVP”)/receipt versus payment (“RVP”) upon receipt of investor funds received by the Company. Accordingly, neither we nor the Placement Agent have made any arrangements to place investor funds in an escrow account or trust account since the Placement Agent will not receive investor funds in connection with the sale of the securities offered hereunder. Because there is no escrow account and there is no minimum offering amount, investors could be in a position where they have invested in the Company, but we are unable to fulfill our objectives due to a lack of interest in this Offering.

Our shares of Common Stock and certain of our outstanding warrants trade on Nasdaq under the symbol “ZIVO” and “ZIVOW”, respectively. On October 27, 2023, the official closing price of our Common Stock as reported by Nasdaq was \$2.73 per share. The actual public offering price per share and accompanying Common Warrant will be determined between us, the Placement Agent (as defined below) and the investors in the offering and may be at a discount to the current market price of our Common Stock. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final public offering price. We do not intend to apply for listing of the Common Warrants or Pre-Funded Warrants on any national securities exchange or trading system. Without an active trading market, the liquidity of the Common Warrants and Pre-Funded Warrants will be limited.

Investing in our securities involves significant risks. You should review carefully the “Risk Factors” beginning on page 11 of this prospectus and those risks described in the section titled “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2022 and in our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023 and June 30, 2023, and all other information included or incorporated by reference in this prospectus in its entirety, for a discussion of information that should be considered in connection with an investment in our securities.

Neither the U.S. Securities and Exchange Commission nor any state securities regulators has approved or disapproved of these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Common Stock and Common Warrant	Per Pre-Funded Warrant and Common Warrant	Total
Public offering price			
Placement Agent fees ⁽¹⁾			
Proceeds, before expenses, to us ⁽²⁾			

- (1) The Placement Agent fees shall equal 7.0% of the gross proceeds of the securities sold by us in this Offering. We have also agreed to reimburse the Placement Agent for certain expenses incurred in connection with this Offering. See “*Plan of Distribution*” for a description of compensation payable to the Placement Agent.
- (2) The amount of offering proceeds to us presented in this table assumes no Pre-Funded Warrants are issued in lieu of shares of Common Stock and does not give effect to any exercise of the Common Warrants.

We have engaged A.G.P./Alliance Global Partners as our exclusive placement agent (“A.G.P.” or the “Placement Agent”) to use its reasonable best efforts to solicit offers to purchase our Securities in this Offering. The Placement Agent has no obligation to purchase any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. Because there is no minimum offering amount required as a condition to closing in this Offering the actual public amount, placement agent’s fee, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above and throughout this prospectus. We have agreed to pay the Placement Agent the placement agent fees set forth in the table above and to provide certain other compensation to the Placement Agent. See “*Plan of Distribution*” beginning on page 40 of this prospectus for more information regarding these arrangements.

Delivery of the securities being offered pursuant to this prospectus is expected to be made on or about , 2023, subject to the satisfaction of certain closing conditions.

Sole Placement Agent

A.G.P.

The date of this prospectus is , 2023.

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ABOUT THIS PROSPECTUS

The registration statement on Form S-1, of which this prospectus forms a part, that we have filed with the U.S. Securities and Exchange Commission (the “SEC”) includes exhibits that provide more detail of the matters discussed in this prospectus (the “Registration Statement”).

You should read this prospectus, the documents incorporated by reference into this prospectus, and any prospectus supplement or free writing prospectus that we may authorize for use in connection with this Offering in their entirety before making an investment decision. This prospectus is an offer to sell only the securities offered hereby but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in, or incorporated into, this prospectus is current only as of its date. Our business, financial condition, results of operations and prospects may have changed since that date. We may also file a prospectus supplement or post-effective amendment to the registration statement of which this prospectus forms a part that may contain material information relating to these offerings. The prospectus supplement or post-effective amendment may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or post-effective amendment, you should rely on the prospectus supplement or post-effective amendment, as applicable. We urge you to carefully read this prospectus, together with the information incorporated herein by reference as described under the headings “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

We and the Placement Agent are not offering to sell or seeking offers to purchase these securities in any jurisdiction where the offer or sale is not permitted. We and the Placement Agent have not done anything that would permit this Offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus related to this Offering in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions relating to this Offering and the distribution of this prospectus.

Unless the context otherwise requires, the terms “ZIVO,” “Zivo Bioscience,” the “Company,” “we,” “us” and “our” refer to Zivo Bioscience, Inc. and its wholly-owned subsidiaries, Health Enhancement Corporation, HEPI Pharmaceuticals, Inc., Wellmetrix, LLC, Wellmetris, LLC, Zivo Bioscience, LLC, Zivo Biologic, Inc., ZIVOLife, LLC, and Zivo Zoologic, Inc. We also have allowed pending trademark applications in several countries for “KALGAE™,” “ZIVO,” and “ZIVO Bioscience” and “WELLMETRIX.” We may have other common law rights in other trademarks, trade names, service marks, and the like which will continue as long as we use those respective marks. We have registered the name “WellMetrix” to replace the current “WellMetris” corporate identification and secured an ICANN domain of the same spelling in late 2017. Other service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners. Except as set forth above and solely for convenience, the trademarks and trade names in this prospectus are referred to without the ®, © and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

As a result of a one-for-six reverse split of our common stock and treasury stock (the “Reverse Split”), which became effective on October 26, 2023, unless the context expressly indicates otherwise, all references to share and per share amounts referred to herein reflect the amounts after giving effect to the Reverse Split.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in or incorporated into this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

The words “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about:

- our ability to continue as a going concern and our history of losses;
- our continued listing with Nasdaq;
- our ability to obtain additional financing;
- our use of the net proceeds from this Offering;
- our relatively new business model and lack of significant revenues;
- our ability to prosecute, maintain or enforce our intellectual property rights;
- disputes or other developments relating to proprietary rights and claims of infringement;
- the accuracy of our estimates regarding expenses, future revenues and capital requirements;
- the implementation of our business model and strategic plans for our business and technology;
- the successful development of our sales and marketing capabilities;
- the potential markets for our products and our ability to serve those markets;
- the rate and degree of market acceptance of our products and any future products;
- our ability to retain key management personnel;
- regulatory developments and our compliance with applicable laws;
- our liquidity; and
- other factors beyond our control, including those listed under “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on March 14, 2023, which is incorporated by reference in this prospectus (the “2022 Annual Report”) and in our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023 and June 30, 2023, each as incorporated herein by reference, and in other filings we may make from time to time with the SEC.

These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry’s actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in greater detail under the section entitled “*Risk Factors*” and elsewhere in this prospectus. You should not rely upon forward-looking statements as predictions of future events.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, after the date of this prospectus, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere or incorporated by reference into this prospectus. This summary does not contain all the information that you should consider before investing. You should read the entire prospectus carefully, including the sections titled “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements” in this prospectus and the historical financial statements and the notes thereto incorporated by reference into this prospectus. You should pay special attention to the information contained under the caption titled “Risk Factors” in this prospectus, in our 2022 Annual Report, in any subsequent Quarterly Reports on Form 10-Q and in our other reports filed from time to time with the SEC, which are incorporated by reference into this prospectus, before deciding to buy our securities.

Business Overview

We are a research and development company operating in both the biotech and agtech sectors, with an intellectual property portfolio comprised of proprietary algal and bacterial strains, biologically active molecules and complexes, production techniques, cultivation techniques and patented or patent-pending inventions for applications in human and animal health.

Biotech (Therapeutic) Business Strategy

We are developing bioactive compounds derived from our proprietary algal culture, targeting human and animal diseases, such as poultry coccidiosis, bovine mastitis, human cholesterol, and canine osteoarthritis. As part of our therapeutic strategy, we will continue to seek strategic partners for late stage development, regulatory preparation and commercialization of its products in key global markets.

After identification and study of isolated active materials obtained from our proprietary algal culture and assessing their potential treatment applications, we have identified an effective product candidate for treating coccidiosis in broiler chickens. The focus on coccidiosis is driven by the potential to rapidly generate significant revenue, primarily due to the widespread prevalence of coccidiosis as a global issue in the poultry industry. Additionally, the clinical testing cycle for chickens is comparatively shorter than that for other species.

The coccidiosis market within the global animal health sector is currently saturated with predominantly antibiotic- or ionophore-based products. What we believe distinguishes Zivo’s product candidate is its innovative non-antibiotic method of action. This approach augments the chicken’s immune system to combat the effects of the coccidiosis parasite and other pathogens. Unlike established treatments, our novel non-antibiotic technology addresses both industry and consumer concerns related to residual antibiotics and chemicals in the global food supply.

We expect that this departure from the conventional approaches that have dominated the market for the past six decades will provide us with a strategic advantage in this market. We aim to bring much-needed innovation to an area that has experienced limited advancements, potentially offering a disruptive and effective solution for treating coccidiosis in broiler chickens. Our emphasis on a non-antibiotic approach aligns with evolving industry-wide expectations and supports a commitment to providing safer and more sustainable solutions in animal health.

Coccidiosis Product Candidate

In numerous prior studies, ZIVO's product candidate has demonstrated multiple benefits, including:

- Minimized or eliminated the negative effects of coccidiosis on the digestive health in broiler chickens by numerous measures of gut health and overall well-being;
- Reduced the incidence of Campylobacter, Salmonella, E. coli, and Clostridium perfringens, all significant sources of food-borne illness, in the digestive tract of broiler chickens in the absence of antibiotics or other antimicrobial compounds; and
- Reduced mortality.

The predominant treatment for coccidiosis in the poultry industry, in-feed anticoccidial drugs target the Eimeria parasite directly and require constant use over the lifespan of the animal for efficacy and can over time result in the development of resistant Eimeria strains. Other treatment strategies, such as vaccines, require several weeks for immunity to manifest, which can significantly impact growth potential. Often, several treatment products are used in combination, increasing costs in an industry already facing heavy inflationary pressures. As a result, the poultry industry is actively searching for a novel solution.

Our treatment alternative represents an innovative new product class that aims to strengthen the immune system through multiple complementary immune pathways to afford a rapid and robust response to the effects of disease-causing pathogens without the adverse effects associated with traditional antimicrobial drugs and chemicals.

Agtech (Nutrition) Business Strategy

For the nutrition or agtech side of our business, we have developed our proprietary algal culture to be commercially viable as a food or food additive. The dried powdered form contains approximately 45% protein, is an excellent source of fiber, vitamins, and other essential nutrients, and is nearly completely odorless and tasteless unlike other algal products. As we reviewed our agtech business early this year, we were very satisfied with the nature of the product given the updated confirmation of the Self Affirmed GRAS (Generally Recognized as Safe) status for our dried whole algal biomass product. Our strategy continues to focus on working with growing and marketing partners to generate and grow revenue in 2023.

Our challenge remains in scale-up technology allowing us to cultivate and process our proprietary algae in quantities to sufficiently meet the potential demand. We have, therefore, focused our agtech strategy on developing a cost effective, commercial-scale growing technology.

Today's algae industry is artisanal and fragmented. There is no major source that can deliver to national brands and co-packers consistent quality and quantity of dried algae, and we aim to fill that market need with our proprietary algae.

In 2021, we initiated a long-term collaboration, commencing a development agreement with Grupo Alimentaria, a well-established family-run Peruvian agricultural conglomerate. The Alimentaria-ZIVO team has dedicated their efforts to perfecting the cultivation process and constructing commercial-scale algae ponds using ZIVO's proprietary design. By early 2023, the team successfully demonstrated the continuous production of high-quality dried algae at the development site in Peru. Subsequently, our focus has shifted towards commercial production and scaling up operations.

A significant milestone in this partnership is the transition from the development agreement to a commercial agreement. Under this arrangement, Alimentaria is set to make essential investments in the Peru site to facilitate production scale-up. In turn, ZIVO, through its ZIVOLife subsidiary, commits to purchasing the entire output from that facility. This collaborative effort marks a pivotal step in advancing our shared goals in the algae production venture.

In June 2023, ZIVOLife commenced commercial shipments of our dried green algae powder intended for human consumption and use as a food or food ingredient. Through a global distribution agreement, ZWorldwide, Inc., based in Miami, has taken on the role of selling the Peruvian-grown product under the brand name Zivolife™. The primary market focus for the product's introduction is the North American green powder food market.

ZWorldwide, functioning as a direct-to-consumer marketing company, is actively retailing the Zivolive™ product directly to consumers through its online platform at www.zivo.life. At this stage, our product volumes remain relatively low and are anticipated to be constrained as we complete the scale-up process with our contract manufacturing partner in Peru. This strategic approach is designed to ensure a controlled expansion of our presence in the market while maintaining product quality and demand considerations.

Additional Indications

Pending additional funding, ZIVO may also pursue the following indications:

Biotech (Therapeutic):

- **Bovine Mastitis:** ZIVO is developing a treatment for bovine mastitis derived from its proprietary algal culture and the bioactive agents contained within.
- **Canine Joint Health:** Studies have indicated the potential of a chondroprotective property when a compound fraction was introduced into *ex vivo* canine joint tissues.
- **Human Immune Modulation:** Early human immune cell *in vitro* and *in vivo* studies have indicated that one of the isolated and characterized biologically active molecules in the Company's portfolio may serve as an immune modulator with potential application in multiple disease situations.

Agtech (Nutrition):

- **Companion Animal Food Ingredient** The self-affirmed GRAS process was completed for ZIVO algal biomass in late 2018 to validate its suitability for human consumption as an ingredient in foods and beverages. We plan to leverage this work into viable food and nutritional supplements for companion animals.
- **Skin Health:** ZIVO is developing its algal biomass as a skin health ingredient, the Company has engaged in some limited topical skin product testing started in the third quarter of 2020, and we plan to perform clinical efficacy claim studies planned for ingestible and topical products.

Listing on the Nasdaq Capital Market

Our Common Stock and certain of our outstanding warrants are listed on Nasdaq since May 28, 2021 under the symbols "ZIVO" and "ZIVOW", respectively.

Recent Developments

Nasdaq Deficiency

As previously disclosed on May 26, 2023, we received a notification letter from Nasdaq on May 23, 2023, notifying us that we were not in compliance with the stockholders' equity requirement of \$2,500,000, as set forth in Nasdaq Listing Rule 5550(b) (the "Stockholders' Equity Rule"). On May 30, 2023, we requested a hearing with the Nasdaq Hearings Panel ("Nasdaq Hearings Panel"), which was held on July 13, 2023. At the hearing, we presented our plan to regain compliance with the Stockholders' Equity Rule.

On August 4, 2023, we received a notification letter from the Nasdaq notifying us that the Nasdaq Hearings Panel has granted our request to provide an extension until November 20, 2023 (the "Exception Period") to regain compliance with the Stockholders' Equity Rule for continued listing on Nasdaq. The Nasdaq Hearings Panel further noted that the Exception Period for continued listing is subject to a filing of a registration statement on Form S-1 with the SEC on or before October 5, 2023, which was satisfied by our filing of the Registration Statement on Form S-1 on October 4, 2023. The Nasdaq Hearings Panel concluded that the Exception Period is justified in this case in light of our efforts to resolve our current equity deficiency and the steps we have taken thus far to prepare for regaining compliance. The Nasdaq Hearings Panel further noted that it does not view our continued listing during the exception period to be an undue risk to the financial markets nor prospective investors (the "Panel's Decision").

In addition, during the Exception Period, the Nasdaq Hearings Panel reserves the right to reconsider the terms of this exception based on any event, condition or circumstance that exists or develops that would, in the opinion of the Nasdaq Hearings Panel, make continued listing of our securities on Nasdaq inadvisable or unwarranted. Furthermore, until the end of the Exception Period, we are required to provide prompt notification to the Nasdaq Hearings Panel of any significant events that may affect our compliance with Nasdaq requirements.

We intend to regain compliance with the Stockholders' Equity Rule prior to the end of the Exception Period set forth in the Panel's Decision. However, until Nasdaq has reached a final determination that we have regained compliance with the applicable Nasdaq requirements, there can be no assurances regarding the continued listing of our securities on Nasdaq. The delisting of our securities from Nasdaq would have a material adverse effect on our access to capital markets and any limitation on market liquidity or reduction in the price of our Common Stock as a result of that delisting would adversely affect our ability to raise capital on terms acceptable to us, if at all.

There can be no assurance that we will be successful in implementing our plan to regain compliance with the Stockholders' Equity Rule. See the section entitled *Risk Factors* and elsewhere in this prospectus.

June 2023 Registered Direct Offering and Private Placement

On June 30, 2023, we sold 1,030,000 shares of common stock, par value \$0.001 per share, at an offering price of \$2.67 per share, and pre-funded warrants to purchase up to an aggregate of 468,130 shares of Common Stock at an offering price of \$2.6699 per pre-funded warrant, to a single institutional investor (or 171,666 shares of common stock and pre-funded warrants to purchase an aggregate of 78,021 shares of common stock after giving effect to the Reverse Stock Split, as defined below). In a concurrent private placement, we also directly sold to the purchaser Series A Common Warrants to purchase up to an aggregate of 1,498,130 shares of common stock, at an exercise price of \$2.80 per share and Series B Common Warrants to purchase up to an aggregate of 1,498,130 shares of Common Stock, at an exercise price of \$2.80 per share (or Series A Common Warrants to purchase up to an aggregate of 249,688 shares of common stock, and Series B Common Warrants to purchase 249,668 shares of common stock after giving effect to the Reverse Stock Split, as defined below). The Series A Common Warrants are immediately exercisable, subject to a beneficial ownership limitation of the holder provided in the Series A Common Warrants, at any time on or after the date of issuance and will expire two years from the initial exercise date. The Series B Common Warrants are immediately exercisable, subject to a beneficial ownership limitation of the holder provided in the Series B Common Warrants, at any time on or after the date of issuance and will expire five years from the initial exercise date. The gross proceeds to us from the registered direct offering and concurrent private placement were \$3,999,960 (before deducting the placement agent's fees and other estimated offering expenses payable by us). Net proceeds to us were \$3,634,963.

Completion of 1-for-6 Reverse Stock Split; Reduction in Authorized Shares of Common Stock

On October 26, 2023, a Certificate of Amendment (the "Certificate of Amendment") to the Amended and Restated Certificate of Incorporation, as amended to date, of the Company, filed with the Secretary of State of Nevada, took effect. The Certificate of Amendment was filed to effect a one-for-six (1-for-6) reverse split (the "Reverse Split") of the shares of the Company's Common Stock, and to decrease the number of shares of Common Stock from 150,000,000 shares to 25,000,000 shares (the "Common Stock Decrease"). The Reverse Split and the Common Stock Decrease became effective on October 26, 2023. As a result of the Reverse Split, every 6 shares of the Company's issued and outstanding Common Stock automatically converted into one share of Common Stock, without any change in the par value per share, and began trading on a post-split basis under the Company's existing trading symbol, "ZIVO," on October 27, 2023. The Reverse Split affected all holders of Common Stock uniformly and did not affect any common stockholder's percentage ownership interest in the Company, except for de minimis changes as a result of the elimination of fractional shares, as described below. Holders of Common Stock were not required to take any action as a result of the Reverse Stock Split. Their accounts were automatically adjusted to reflect the number of shares owned. A total of 10,449,660 shares of Common Stock were issued and outstanding immediately prior to the Reverse Split, and approximately 1,741,610 shares of Common Stock were issued and outstanding immediately after the Reverse Split. No fractional shares were outstanding following the Reverse Split. Any holder who would have received a fractional share of Common Stock was automatically entitled to receive cash in lieu of the fractional share.

Corporate Information

We were incorporated under the laws of the State of Nevada on March 28, 1983, under the name of "L. Peck Enterprises, Inc." On May 27, 1999, we changed our name to "Western Glory Hole, Inc." From 1990 until October 2003, we had no business operations; we were in the development stage and were seeking profitable business opportunities. On October 30, 2003, we acquired 100% of the outstanding shares of Health Enhancement Corporation ("HEC") in exchange for 112,500 of our shares, making HEC our wholly-owned subsidiary. In connection with this transaction, we changed our name to Health Enhancement Products, Inc. On October 14, 2014, at the annual meeting of the stockholders of the Company, a proposal was passed to change the name of the Company from Health Enhancement Products, Inc. to Zivo Bioscience, Inc. On October 30, 2014, the Financial Industry Regulatory Authority approved the name Zivo Bioscience, Inc. for trading purposes and the symbol change to ZIVO effective November 10, 2014.

Our principal executive offices are located at 21 East Long Lake Road, Suite 100, Bloomfield Hills, Michigan 48304, and our phone number is (248) 452-9866.

THE OFFERING

Issuer	Zivo Bioscience, Inc.
Securities offered by us	<p>We are offering up to 2,930,402 shares of Common Stock in the aggregate represented by shares of Common Stock, or Pre-Funded Warrants to purchase up to 2,930,402 shares of Common Stock, and Common Warrants to purchase up to 2,930,402 shares of Common Stock. Each share of Common Stock and Pre-Funded Warrant will be sold together with one Common Warrant.</p> <p>We are also offering to certain purchasers whose purchase of shares of Common Stock in this Offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding shares of Common Stock immediately following the closing of this Offering, the opportunity to purchase, if such purchasers so choose, Pre-Funded Warrants, in lieu of shares of Common Stock that would otherwise result in any such purchaser's beneficial ownership, together with its affiliates and certain related parties, exceeding 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding shares of Common Stock immediately following the consummation of this Offering. The purchase price per pre-funded warrant will be equal to the price per Common Stock, minus \$0.001, and the exercise price of each pre-funded warrant will equal \$0.001 per share. The Pre-Funded Warrants will be immediately exercisable (subject to the beneficial ownership limit) and may be exercised at any time in perpetuity until all of the Pre-Funded Warrants are exercised in full. For each Pre-Funded Warrant we sell, the number of shares of Common Stock we are offering will be decreased on a one-for-one basis. This offering also relates to the shares of Common Stock issuable upon exercise of any pre-funded warrants sold in this Offering. For more information regarding the pre-funded warrants, you should carefully read the section titled "<i>Description of the Securities - Pre-Funded Warrants</i>" in this prospectus.</p>
Offering price per share of Common Stock	Assumed public offering price of \$2.73 per share of Common Stock and accompanying Common Warrant or \$2.729 per Pre-Funded Warrant and accompanying Common Warrant, as applicable. The final offering price will be determined by the Company, the Placement Agent and the investors in this Offering and may be at a discount to the market price of the Common Stock.
Description of the Common Warrants	Each share of Common Stock will be sold together with one Common Warrant. Each Common Warrant has an exercise price per share equal to 100% of the public offering price of shares in this Offering and expires on the fifth anniversary of the original issuance date. Each Common Warrant is exercisable for one share of Common Stock, subject to adjustment in the event of stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our Common Stock as described herein. A holder may not exercise any portion of a Common Warrant to the extent that the holder, together with its affiliates and any other person or entity acting as a group, would own more than 4.99% of the outstanding Common Stock after exercise, as such percentage ownership is determined in accordance with the terms of the Common Warrants, except that upon notice from the holder to us, the holder may waive such limitation up to a percentage, not in excess of 9.99%. Each Common Warrant will be exercisable immediately upon issuance and will expire five years after the initial issuance date. The terms of the Common Warrants will be governed by the provisions contained therein. Because we will issue a Common Warrant for each share of Common Stock and for each Pre-Funded Warrant sold in this Offering, the number of Common Warrants sold in this Offering will not change as a result of a change in the mix of shares of Common Stock and Pre-Funded Warrants sold. This prospectus also relates to the offering of the shares of Common Stock issuable upon exercise of the Common Warrants. This offering also relates to shares of Common Stock issuable upon exercise of any Common Warrants sold in this Offering. For more information regarding the Common Warrants, you should carefully read the section titled " <i>Description of the Securities - Common Warrants</i> " in this prospectus.
Common Stock to be outstanding immediately after this Offering	4,672,012 shares (based on 1,741,610 shares of Common Stock outstanding as of September 30, 2023 and assuming we sell only shares of Common Stock and accompanying Common Warrants and no Pre-Funded Warrants and none of the Common Warrants issued in this offering are exercised.)
Reasonable Best Efforts	We have agreed to issue and sell the securities offered hereby to the purchasers through the Placement Agent. The Placement Agent is not required to buy or sell any specific number or dollar amount of the securities offered hereby, but they will use their reasonable best efforts to solicit offers to purchase the securities offered by this prospectus. See the section entitled " <i>Plan of Distribution</i> " on page 40 of this prospectus
Use of proceeds	We estimate that the net proceeds from this Offering will be approximately \$7.1 million, at the assumed public offering price of \$2.73 per share and accompanying Common Warrant (assuming a public offering price equal to the official closing price of our Common Stock on Nasdaq on October 27, 2023, which was \$2.73 per share), assuming the number of shares of Common Stock offered by us, as set forth on the cover page of this prospectus, remains the same, assuming no sale of any Pre-Funded Warrants and no exercise of the Common Warrants issued in connection with this Offering, and after deducting the placement agent fees and estimated offering expenses payable by us. We currently intend to use the net proceeds for general corporate purposes, which include, but are not limited to, the funding of research and development, expansion of production of algal biomass and working capital, after deducting Placement Agent fees and estimated offering expenses payable by us. Because this is a best efforts offering, we may not sell all or any of the securities offered hereby. As a result, we may receive significantly less in net proceeds than we currently estimate. See " <i>Use of Proceeds</i> " on page 25 for more information.

Lock-up	Our directors, executive officers, and stockholders who own 5% or more of the outstanding shares of our Common Stock have agreed with the Placement Agent not to offer for sale, issue, sell, contract to sell, pledge or otherwise dispose of any of our Common Stock or securities convertible into Common Stock for a period of 90 days commencing on the date of this prospectus. See “ <i>Plan of Distribution</i> ”.
Amendment to outstanding common warrants	In connection with this offering, we may amend the terms of outstanding common warrants to purchase up to 499,376 shares of our Common Stock, which were previously issued to reduce the exercise price of such warrants to equal the exercise price of the Common Warrants sold in this offering, and to extend the term during which those warrants could remain exercisable to the term of the Common Warrants sold in this offering.
Risk factors	For a discussion of certain factors to consider carefully before deciding to purchase any of our securities, you should read the “ <i>Risk Factors</i> ” section and other information appearing elsewhere in this prospectus, the risks described under the caption “Risk Factors” in our 2022 Annual Report and in our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023 and June 30, 2023, which are incorporated herein by reference.
Listing	Our shares of Common Stock and certain of our outstanding warrants trade on Nasdaq under the symbol “ZIVO” and “ZIVOW”, respectively. We do not intend to list the Common Warrant or Pre-Funded Warrants offered hereunder on any stock exchange.
Outstanding Common Stock	
	The number of shares of Common Stock to be outstanding immediately following this Offering is based on 1,741,610 shares of Common Stock outstanding as of September 30, 2023 and assumes (i) no sale of Pre-Funded Warrants in this Offering, which, if sold, would reduce the number of Common Stock that we are offering on a one-for-one basis, (ii) no exercise of the Common Warrants issued in this Offering, and (iii) excludes:
	<ul style="list-style-type: none">· 292,529 shares of our Common Stock issuable upon the exercise of outstanding stock options as of September 30, 2023, with an approximate weighted-average exercise price of \$35.58 per share;· 226,644 shares of our Common Stock issuable upon the exercise of unregistered warrants outstanding as of September 30, 2023 with an approximate weighted-average exercise price of \$38.52 per share;· 495,916 shares of our Common Stock issuable upon exercise of registered warrants outstanding as of September 30, 2023 with an approximate weighted-average exercise price of \$33.00 per share;· 91,548 shares of our Common Stock reserved for future issuance under our 2021 Equity Incentive Plan (the “2021 Plan”) as of September 30, 2023;· 78,021 shares of our Common Stock issuable upon exercise of pre-funded warrants sold to a single institutional investor outstanding as of September 30, 2023;· 249,688 shares of our Common Stock issuable upon exercise of Series A Warrants sold to a single institutional investor outstanding as of September 30, 2023; and· 249,688 shares of our Common Stock issuable upon exercise of Series B Warrants sold to a single institutional investor outstanding as of September 30, 2023.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following summary consolidated financial data as of December 31, 2022, and for the years ended December 31, 2022 and 2021, have been derived from our audited consolidated financial statements and the related notes included in our 2022 Annual Report, which are incorporated by reference in this prospectus in their entirety. The summary statements of operations data for the six months ended June 30, 2023 and 2022 and the summary balance sheet data as of June 30, 2023 were derived from our unaudited financial statements included in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2023 filed with the SEC on August 14, 2023 (the "Form 10-Q"), which is incorporated by reference in this prospectus.

You should read this table in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes and the other financial and statistical information included in our 2022 Annual Report and the Form 10-Q, which are incorporated by reference in this prospectus. See the section in this prospectus entitled "Incorporation of Certain Information by Reference" for more information regarding documents incorporated by reference herein. The summary consolidated financial and other data provided below does not purport to indicate results of operations as of any future date or for any future period.

	For the Six Months Ended June 30, (unaudited)		For the Years Ended December 31,	
	2023	2022	2022	2021
Revenue				
Total revenue	\$ 4,050	\$ -	\$ -	\$ -
Total cost of goods sold	701	-	-	-
Gross margin	3,349	-	-	-
Costs and Expenses:				
General and administrative	2,953,478	2,976,295	6,491,704	6,694,619
Research and development	843,910	1,117,821	2,240,270	1,950,500
Total costs and expenses	3,797,388	4,094,116	8,731,974	8,645,119
Loss from operations	(3,794,039)	(4,094,116)	(8,731,974)	(8,645,119)
Other income (expense):				
Interest (expense)			(13,319)	(233,282)
Gain on forgiveness of debt and accrued interest			-	122,520
Total other (expense), net	(249,675)	(6,043)	(13,319)	(110,762)
Net loss	\$ (4,043,714)	\$ (4,100,159)	\$ (8,745,293)	\$ (8,755,881)
Net loss per share ⁽¹⁾	\$ (2.58)	\$ (2.61)	\$ (5.55)	\$ (6.89)

(1) Net loss per share gives retroactive effect to the company's one-for-six Reverse Stock Split which became effective on October 26, 2023.

	As of June 30,	
	2023	2022
	(unaudited)	
Balance Sheet Data:		
Cash and cash equivalents	\$ 21,067	\$ 5,083,720
Total assets	\$ 710,330	\$ 5,864,608
Total current liabilities	\$ 3,804,242	\$ 2,697,181
Total long-term liabilities	\$ 50,920	\$ 157,004
Total liabilities and stockholders' equity	\$ 710,330	\$ 5,864,608

RISK FACTORS

Investing in our securities involves risks. Before making an investment decision, you should carefully consider the specific risks described below, the risks described under the caption "Risk Factors" in our 2022 Annual Report and in our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023 and June 30, 2023, which are incorporated herein by reference, as well as other risk factors described under the caption "Risk Factors" included or incorporated by reference in the prospectus, including our other filings with the SEC, before making an investment decision. Please refer to these subsequent reports for additional information relating to the risks associated with investing in our Common Stock or Pre-Funded Warrants and the accompanying Common Warrants. If any of such risks and uncertainties actually occurs, our business, financial condition, and results of operations could be severely harmed.

Risks Related to this Offering

Resales of our Common Stock, including the Common Stock issuable upon exercise of the Common Warrants being offered in this Offering, in the public market by our stockholders as a result of this Offering may cause the market price of our Common Stock to fall.

Sales of a substantial number of shares of our Common Stock, including the shares of Common Stock issuable upon exercise of the Common Warrants being offered in this Offering, in the public market could occur at any time. The issuance of new shares of our Common Stock, including the shares of Common Stock issuable upon exercise of the Common Warrants being offered in this Offering, could result in resales of our Common Stock by our current stockholders concerned about the potential ownership dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our Common Stock and consequently our Common Warrants.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our Common Stock.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our Common Stock in the public market after applicable legal restrictions on resale and the lock-up agreements, the trading price of our stock could decline. As of September 30, 2023, we had 1,741,610 shares of Common Stock outstanding. As of September 30, 2023 we had outstanding options that in aggregate would be exercisable for 292,529 shares (including unvested options), unregistered and registered warrants exercisable for 1,299,957 shares and convertible debt. Substantially all of such shares of Common Stock may be sold in the public market. If outstanding options or warrants are exercised, if substantial additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our Common Stock, and consequently our Common Warrants, could decline.

In connection with this offering, we may amend the terms of outstanding common warrants to purchase up to 499,376 shares of our Common Stock, which were previously issued to reduce the exercise price of such warrants to equal the exercise price of the Common Warrants sold in this offering, and to extend the term during which those warrants could remain exercisable to the term of the Common Warrants sold in this offering.

Our management will have broad discretion over the use of the net proceeds from this Offering, you may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from this Offering and could use them for purposes other than those contemplated at the time of commencement of this Offering. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that, pending their use, we may invest the net proceeds in a way that does not yield a favorable, or any, return for our Company.

You may experience immediate and substantial dilution in the book value per share of the Common Stock you purchase.

The public offering price per Common Stock is substantially higher than the net tangible book value per share of our Common Stock. Therefore, if you purchase securities in this Offering, you will pay an effective price per share of Common Stock you acquire that substantially exceeds our net tangible book value per share after this Offering. Assuming no exercise of the Common Warrants being offered in this Offering, no value is attributed to such Common Warrants and such Common Warrants are classified as and accounted for as equity, you will experience immediate dilution of \$ 1.10 per share, representing the difference between our as adjusted net tangible book value per share after giving effect to this Offering and the public offering price per Common Stock. In addition, if previously issued options and warrants to acquire Common Stock are exercised at prices below the offering price or the accompanying Common Warrants being offered in this Offering are accounted for as liabilities, you will experience further dilution.

In addition, we have a significant number of stock options and warrants outstanding, and, in order to raise additional capital, we may in the future offer additional shares of our Common Stock or other securities convertible into or exchangeable for our Common Stock at prices that may not be the same as the price per share in this Offering. In the event that the outstanding options or warrants are exercised or settled, or that we make additional issuances of Common Stock or other convertible or exchangeable securities, you could experience additional dilution. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this Offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders, including investors who purchase shares of Common Stock in this Offering. The price per share at which we sell additional shares of our Common Stock or securities convertible into Common Stock in future transactions, may be higher or lower than the price per share in this Offering. As a result, purchasers of the shares we sell, as well as our existing stockholders, will experience significant dilution if we sell at prices significantly below the price at which they invested. See “Dilution” for a more detailed discussion of the dilution you may incur in connection with this Offering.

This Offering may cause the trading price of our Common Stock to decrease.

The price per share, together with the number of shares of Common Stock we propose to issue and ultimately will issue if this Offering is completed, may result in an immediate decrease in the market price of our Common Stock. This decrease may continue after the completion of this Offering.

The Common Stock price determined for this Offering is not an indication of the fair value of our Common Stock.

In determining the Common Stock price, our board of directors (the “Board of Directors”) considered a number of factors, including, but not limited to, our need to raise capital in the near term to continue our operations, the current and historical trading prices of our Common Stock, a price that would increase the likelihood of participation in this Offering, the cost of capital from other sources, the value of the Common Warrants being issued as components of the Common Stock and comparable precedent transactions. The Common Stock price does not necessarily bear any relationship to any established criteria for value. No valuation consultant or investment banker has opined upon the fairness or adequacy of the Common Stock price. You should not consider the Common Stock price as an indication of the value of our Company or our Common Stock.

This is a reasonable best efforts offering, no minimum amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans.

The Placement Agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities being offered in this Offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities or amount of proceeds that must be sold as a condition to completion of this Offering. Because there is no minimum offering amount required as a condition to the closing of this Offering, the actual offering amount, Placement Agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth above. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this Offering will not receive a refund in the event that we do not sell an amount of securities sufficient to fund for our operations as described in the “Use of Proceeds” section herein. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds, which may not be available or available on terms acceptable to us.

Our ability to utilize loss carry forwards may be limited.

Generally a change of more than fifty percent (50%) in the ownership of a company’s stock, by value, over a three-year period constitutes an ownership change for U.S. federal income tax purposes. An ownership change may limit our ability to use our net operating loss carryforwards attributable to the period prior to the change. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may become subject to limitations.

Risks Related to the Common Warrants and Pre-Funded Warrants

There is no public market for the Common Warrants or Pre-Funded Warrants being offered in this Offering and we do not expect one to develop.

There is no established public trading market for the Pre-Funded Warrants and Common Warrants being offered in this Offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the Pre-Funded Warrants and Common Warrants on any securities exchange or nationally recognized trading system. Without an active market, the liquidity of the Pre-Funded Warrants and Common Warrants will be limited.

The United States federal income taxation of the Pre-Funded Warrants is uncertain.

We and holders of our Pre-Funded Warrants may have to take positions that are not yet settled under current U.S. federal income tax law with respect to the Pre-Funded Warrants. The IRS may disagree with the positions taken by the Company, which could result in adverse U.S. federal income tax consequences for us and our shareholders, including holders of the Pre-Funded Warrants. Prospective investors are urged to consult their personal income tax advisers in this regard.

Purchasers of our Common Warrants or Pre-Funded Warrants will not have any rights of common stockholders until such Common Warrants or Pre-Funded Warrants are exercised.

The Common Warrants and Pre-Funded Warrants being offered do not confer any rights of Common Stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire Common Stock at a fixed price. Upon exercise of such Common Warrants or Pre-Funded Warrants, holders will be entitled to exercise the rights of a Common Stockholder only as to matters for which the record date occurs after the exercise date.

If we do not maintain a current and effective prospectus relating to the Common Stock issuable upon exercise of the Pre-Funded Warrants and Common Warrants, holders will only be able to exercise such Pre-Funded Warrants and Common Warrants on a “cashless basis.”

If we do not maintain a current and effective prospectus relating to the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants or the Common Warrants at the time that holders wish to exercise such warrants, they will only be able to exercise them on a “cashless basis,” and under no circumstances would we be required to make any cash payments or net cash settle such warrants to the holders. As a result, the number of shares of Common Stock that holders will receive upon exercise of the Pre-Funded Warrants or the Common Warrants will be fewer than it would have been had such holders exercised their Pre-Funded Warrants or the Common Warrants for cash. Under the terms of the Pre-Funded Warrants or the Common Warrants, we have agreed to use our reasonable best efforts to maintain a current and effective prospectus relating to the shares of Common Stock issuable upon exercise of such warrants until the expiration of such warrants. However, we cannot assure you that we will be able to do so. If we are unable to do so, the potential “upside” of the holder’s investment in our company may be reduced.

Our outstanding warrants may have an adverse effect on the market price of our Common Stock and make it more difficult to effect a business combination.

We will be issuing Common Warrants to purchase shares of Common Stock as part of this Offering. To the extent we issue shares of Common Stock to effect a future business combination, the potential for the issuance of a substantial number of additional shares upon exercise of these Common Warrants could make us a less attractive acquisition vehicle in the eyes of a target business. Such securities, when exercised, will increase the number of issued and outstanding ordinary shares and reduce the value of the shares issued to complete the business combination. Accordingly, our Common Warrants may make it more difficult to effectuate a business combination or increase the cost of acquiring a target business. Additionally, the sale, or even the possibility of sale, of the shares of Common Stock underlying the Common Warrants could have an adverse effect on the market price for our securities or on our ability to obtain future financing. If and to the extent these Common Warrants are exercised, you may experience dilution to your holdings.

The Pre-Funded Warrants and the Common Warrants are speculative in nature and may not have any value.

The Pre-Funded Warrants and Common Warrants offered hereby do not confer any rights of Common Stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of Common Stock at a fixed price. Specifically, commencing on the date of issuance, holders of the Pre-Funded Warrants may acquire the Common Stock issuable upon exercise of such warrants at an exercise price of \$0.001 per share and holders of the Common Warrants may acquire the Common Stock issuable upon exercise of such warrants at an exercise price per share equal to the public offering price of shares of Common Stock in this Offering. Moreover, following this Offering, the market value of the Pre-Funded Warrants and the Common Warrants is uncertain, and there can be no assurance that the market value of the Pre-Funded Warrants or the Common Warrants will equal or exceed their public offering price.

Each Common Warrant has an exercise price per share equal to the public offering price of shares of Common Stock in this Offering and expires on the fifth anniversary of its original issuance date. In the event the market price per share of Common Stock does not exceed the exercise price of the Common Warrants during the period when the Common Warrants are exercisable, the Common Warrants may not have any value.

Certain provisions of the Pre-Funded Warrants and Common Warrants could discourage an acquisition of us by a third party.

Certain provisions of the Pre-Funded Warrants and Common Warrants could make it more difficult or expensive for a third party to acquire us. The Pre-Funded Warrants and Common Warrants prohibit us from engaging in certain transactions constituting “fundamental transactions” unless, among other things, the surviving entity assumes our obligations under the Pre-Funded Warrants and Common Warrants. Further, the Common Warrants provide that, in the event of certain transactions constituting “fundamental transactions,” with some exception, holders of such warrants will have the right, at their option, to require us to repurchase such Common Stock Warrants at a price described in such warrants. These and other provisions of the Pre-Funded Warrants and Common Warrants could prevent or deter a third party from acquiring us even where the acquisition could be beneficial to you.

Risks Relating to Our Business

Worldwide economic and social instability could adversely affect our revenue, financial condition, or results of operations.

The health of the global economy, and the credit markets and the financial services industry in particular, as well as the stability of the social fabric of our society, affects our business and operating results. For example, the credit and financial markets may be adversely affected by the current conflict between Russia and Ukraine and measures taken in response thereto. If the credit markets are not favorable, we may be unable to raise additional financing when needed or on favorable terms. Our customers may experience financial difficulties or be unable to borrow money to fund their operations, which may adversely impact their ability to purchase our products or to pay for our products on a timely basis, if at all. In addition, adverse economic conditions, such as recent supply chain disruptions and labor shortages and persistent inflation may adversely impact our suppliers’ ability to provide our manufacturer with materials and components, which may negatively impact our business. These economic conditions make it more difficult for us to accurately forecast and plan our future business activities.

The Company is exposed to risks of political instability and changes in government policies, laws and regulations in Peru.

The Company’s algae ponds are located in the Republic of Peru, and may be adversely affected in varying degrees by political instability, government regulations relating to agriculture and foreign investment therein, and the policies of other nations in respect of Peru. Any changes in regulations or shifts in political conditions are beyond the Company’s control and may adversely affect the Company’s business. New laws, regulations and requirements may be retroactive in their effect and implementation. The Company’s operations may be affected in varying degrees by government regulations, including those with respect to restrictions on production, price controls, export controls, income taxes, expropriation of property, employment, land use, water use, and environmental legislation.

Since December 2022, Peru has experienced an increased level of civil unrest and political protests. Civil unrest has led to disruptions in the ability of foreign nationals to travel to and from Peru. The Company continues to closely monitor the situation and its potential impact on Company operations.

We have incurred, and may continue to incur increased costs and demands upon management as a result of being a public company.

As a public company in the United States, listed on the Nasdaq Capital Market, we incur significant legal, accounting and other costs. These additional costs could negatively affect our financial results. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the SEC and Nasdaq, may increase legal and financial compliance costs and make some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If, notwithstanding our efforts to comply with new laws, regulations and standards, we fail to comply, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

Failure to comply with these rules might also make it more difficult for us to obtain some types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our Board, on committees of our Board or as members of senior management.

We have a history of operating losses, and we may not be able to achieve or sustain profitability. In addition, we may be unable to continue as a going concern.

We have incurred net losses during each of our fiscal years since our inception. Our net loss for the year ended June 30, 2023 was approximately \$4 million and our accumulated deficit totaled approximately \$119.8 million as of June 30, 2023. We do not know whether or when we will become profitable, if ever. We currently expect operating losses and negative cash flows to continue for at least the next several years.

Our ability to generate sufficient revenue to achieve profitability depends on our ability, either alone or with strategic collaboration partners, to successfully complete the development of, and obtain the regulatory approvals necessary to commercialize our product candidates.

Our audited consolidated financial statements as of and for the years ended December 31, 2022 and 2021 have been prepared on the basis that we will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. Our auditor's report for the year ended December 31, 2022 contains an explanatory paragraph that we have incurred significant losses since our inception and we expect that we will continue to incur losses as we aim to successfully execute our business plan and will be dependent on additional public or private financings, collaborations or licensing arrangements with strategic partners, or additional credit lines or other debt financing sources to fund continuing operations. Based on our cash balances, recurring losses since inception and our existing capital resources to fund our planned operations for a twelve-month period, there is substantial doubt about our ability to continue as a going concern. As noted below, we will need to obtain additional funding from equity or debt financings, which may require us to agree to burdensome covenants, grant security interests in our assets, enter into collaboration and licensing arrangements that require us to relinquish commercial rights, or grant licenses on terms that are not favorable. No assurance can be given at this time as to whether we will be able to achieve our fundraising objectives, regardless of the terms. If adequate funds are not available, the Company may be required to reduce operating expenses, delay or reduce the scope of its product development programs, obtain funds through arrangements with others that may require the Company to relinquish rights to certain of its technologies or products that the Company would otherwise seek to develop or commercialize itself, or cease operations.

We will require substantial additional financing to achieve our goals, and our failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development efforts.

Our operations have consumed substantial amounts of cash since inception. We expect to continue to incur significant expenses and operating losses for the foreseeable future in connection with our planned research, development and product commercialization efforts. In addition, we will require additional financing to achieve our goals and our failure to do so could adversely affect our commercialization efforts. We anticipate that our expenses will increase substantially if and as we:

- continue our development process for our product candidates;
- seek to maintain, protect and expand our intellectual property portfolio; and
- seek to attract and retain skilled personnel.

If we were to experience any delays or encounter issues with any of the above, it could further increase the costs associated with the above. Further, the net operating losses we incur may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance.

Our production of algae involves an agricultural process, subject to such risks as weather, disease, contamination and water availability.

The production of our proprietary algae strain involves complex agricultural systems with inherent risks including weather, disease and contamination. These risks are unpredictable, and the efficient and effective cultivation of algae requires consistent light, warm temperatures, low rainfall and proper chemical balance in a very nutrient rich environment.

If the chemical composition of a pond changes from its required balance, unusually high levels of contamination due to the growth of unwanted organisms or other biological problems may occur and would result in a loss of harvestable output. These often arise without warning and sometimes there are few or no clear indicators as to appropriate remediation or corrective measures. However, environmental factors cannot be controlled in an open-air environment, therefore, we cannot, and do not attempt to, provide any form of assurance with regard to our systems, processes, location, or cost-effectiveness. In the event that our growers need to take steps to correct any chemical imbalance or contamination of their ponds, including by re-inoculating the ponds, such measures may not be effective and could interrupt production. To the extent that our production is negatively impacted by environmental factors, we may be unable to fill large orders for one or more months until such time that production improves.

We rely on third parties to grow our proprietary algae strains and conduct research, and preclinical and clinical testing, and these third parties may not perform satisfactorily.

We do not currently, and do not expect to in the future, independently conduct any aspects of the growth of our proprietary algae strains, research and monitoring and management of our ongoing preclinical and clinical programs. We currently rely, and expect to continue to rely, on third parties with respect to these items, and control only certain aspects of their activities.

Any of these third parties may terminate their engagements with us at any time unless otherwise stated in contractual agreements. If we need to enter into alternative arrangements, our commercialization activities or our therapeutic candidate development activities may be delayed or suspended. Our reliance on these third parties for research and development activities, reduces our control over these activities but does not relieve us of our responsibility to ensure compliance with all required legal, regulatory and scientific standards and any applicable trial protocols.

Any of these events could lead to delays in the development of our product candidates, including delays in our trials, or failure to obtain regulatory approval for our product candidates, or it could impact our ability to successfully commercialize our current product candidates.

Because our ZIVO algae is currently produced by only one grower, the loss of this grower would have a material adverse impact on our operating results and cash flows.

Currently only one facility grows our ZIVO algae. Any termination of a business relationship with, or a significant sustained reduction in business received from this grower could delay our production efforts and could have a material adverse effect on our operating results and cash flows. We must materially increase the number of our growers and if we cannot, it will adversely impact our financial condition and our business.

If we fail to attract and keep our Chief Executive Officer and Chief Financial Officer, senior management and key scientific personnel, we may be unable to successfully develop our therapeutic candidates, conduct our clinical trials and commercialize our therapeutic candidates.

We are highly dependent on the members of our executive team, including our Chief Executive Officer and Chief Financial Officer, the loss of whose services may adversely impact the achievement of our objectives. Any of our executive officers could leave our employment at any time, as all of our employees are “at will” employees. Recruiting and retaining other qualified employees, consultants and advisors for our business, including scientific and technical personnel, will also be critical to our success.

Recruiting and retaining qualified scientific, clinical, manufacturing, sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

If we are unable to enter into agreements with third parties to market and sell our product candidates, if approved, we may be unable to generate any revenues.

We currently do not have internal sales, marketing and distribution capability for our products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be eligible for commercialization, we must build our sales, distribution, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. We have limited prior experience in the marketing, sale or distribution of approved products and there are significant risks involved in building and managing a sales organization, including our ability to hire, retain, and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel, and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of our therapeutic candidates.

Because the results of preclinical studies and clinical trials are not necessarily predictive of future results, we can provide no assurances that our other product candidates will have favorable results in future studies or trials.

Positive results from preclinical studies or clinical trials should not be relied on as evidence that later or larger-scale studies or trials will succeed. Even if our product candidates achieve positive results in early-stage preclinical studies or clinical trials, there is no guarantee that the efficacy of any product candidate shown in early studies will be replicated or maintained in future studies and/or larger populations. Similarly, favorable safety and tolerability data seen in short-term studies might not be replicated in studies of longer duration and/or larger populations. If any product candidate demonstrates insufficient safety or efficacy in any preclinical study or clinical trial, we would experience potentially significant delays in, or be required to abandon, development of that product candidate.

Further, data obtained from clinical trials are susceptible to varying interpretations. If we delay or abandon our efforts to develop any of our product candidates, we may not be able to generate sufficient revenues to become profitable, and our reputation in the industry and in the investment community would likely be significantly damaged, each of which would cause our stock price to decrease significantly.

Development of certain of our products involves a lengthy and expensive process, with uncertain outcomes. We may, and our current or future licensees may, incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of any product.

We may, and our current or future licensees may, experience numerous unforeseen events during or as a result of clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our products, including:

- regulators may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- the failure to successfully complete pre-clinical testing requirements required by the FDA and international organizations;
- delays may occur in reaching, or fail to reach, agreement on acceptable clinical trial contracts with third parties or clinical trial protocols with prospective trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different trial sites;
- the cost of clinical trials of our products may be greater than we anticipate;
- delays or difficulties in obtaining an FDA No Objection letter for human consumption of our algal biomass; and

If we are required to conduct additional clinical trials or other testing of our biotech product candidates under development or algal biomass beyond those that we contemplate, if we are unable to successfully complete clinical trials of our product candidates under development or algal biomass or other testing, if the results of these trials or tests are not favorable or if there are safety concerns, we may, or our existing or future licensees may:

- not obtain marketing approval at all;
- be delayed in obtaining marketing approvals in a jurisdiction; or
- be subject to additional post-marketing testing requirements.

Increased regulatory scrutiny of nutritional supplements as well as new regulations that are being adopted in some of our markets with respect to nutritional supplements could result in more restrictive regulations and harm our results if our supplements or advertising activities are found to violate existing or new regulations or if we are not able to effect necessary changes to our products in a timely and efficient manner to respond to new regulations.

There has been an increasing movement in the United States and other markets to increase the regulation of dietary supplements, which could impose additional restrictions or requirements on us and increase the cost of doing business. On February 11, 2019, the FDA issued a statement from FDA Commissioner, Dr. Scott Gottlieb, regarding the agency's efforts to strengthen the regulation of dietary supplements. The FDA will be prioritizing and focusing resources on misbranded products bearing unproven claims to treat, cure, or mitigate disease. Commissioner Gottlieb established a Dietary Supplement Working Group tasked with reviewing the agency's organizational structure, process, procedures, and practices to identify opportunities to modernize the oversight of dietary supplements. Additionally, on December 21, 2015, the FDA created the Office of Dietary Supplements ("ODSP"). The creation of this new office elevates the FDA's program from its previous status as a division under the Office of Nutrition and Dietary Supplements. ODSP will continue to monitor the safety of dietary supplements.

In August 2016, the FDA published its revised draft guidance on Dietary Supplements: New Dietary Ingredient Notifications and Related Issues. If a company sells a dietary supplement containing an ingredient that FDA considers either not a dietary ingredient or a new dietary ingredient (“NDI”) that needs an NDI notification, the agency may threaten or initiate enforcement against such company. For example, it might send a warning letter that can trigger consumer lawsuits, demand a product recall, or even work with the Department of Justice to bring a criminal action. Our operations could be harmed if new guidance or regulations require us to reformulate products or effect new registrations, if regulatory authorities make determinations that any of our products do not comply with applicable regulatory requirements, if the cost of complying with regulatory requirements increases materially, or if we are not able to effect necessary changes to our products in a timely and efficient manner to respond to new regulations. In addition, our operations could be harmed if governmental laws or regulations are enacted that restrict the ability of companies to market or distribute nutritional supplements or impose additional burdens or requirements on nutritional supplement companies.

The growth of our agtech sector depends in part on market acceptance of products that contain our algae.

The success of our agtech business involves the use of our algal biomass in various animal and human products. There can be no assurance regarding the successful distribution and market acceptance of products containing our algae. The expenses or losses associated with lack of market acceptance of our products could harm our ability to find or maintain new licensees for these products.

If our computer systems are hacked, or we experience any other cybersecurity incident, we may face a disruption to our operations, a compromise or corruption of our confidential information and/or damage to our business relationships, all of which could negatively impact our business, results of operations or financial condition.

We rely on information technology networks and systems, including the Internet, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities. Additionally, we collect and store certain data, including proprietary business information, and may have access to confidential or personal information in certain of our businesses that is subject to privacy and security laws and regulations. These technology networks and systems may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components; power outages; telecommunications or system failures; terrorist attacks; natural disasters; employee error or malfeasance; server or cloud provider breaches; and computer viruses or cyberattacks. Cybersecurity threats and incidents can range from uncoordinated individual attempts to gain unauthorized access to information technology networks and systems to more sophisticated and targeted measures, known as advanced persistent threats, directed at us, our products, customers and/or our third-party service providers. It is possible a security breach could result in theft of trade secrets or other intellectual property or disclosure of confidential customer, supplier or employee information. Should we be unable to prevent security breaches or other damage to our information technology systems, disruptions could have an adverse effect on our operations, as well as expose us to costly litigation, liability or penalties under privacy laws, increased cybersecurity protection costs, reputational damage and product failure.

The animal health industry is highly competitive.

The animal health industry is highly competitive. Our competitors include standalone animal health businesses, the animal health businesses of large pharmaceutical companies, specialty animal health businesses and companies that mainly produce generic products. We believe many of our competitors are conducting R&D activities in areas served by our products and in areas in which we are developing products. Several new start-up companies also compete in the animal health industry. We also face competition from manufacturers of drugs globally, as well as producers of nutritional health products. These competitors may have access to greater financial, marketing, technical and other resources. As a result, they may be able to devote more resources to developing, manufacturing, marketing and selling their products, initiating or withstanding substantial price competition or more readily taking advantage of acquisitions or other opportunities.

Competitive pressure could arise from, among other things, more favorable safety and efficacy product profiles, limited demand growth or a significant number of additional competitive products being introduced into a particular market, price reductions by competitors, the ability of competitors to capitalize on their economies of scale, the ability of competitors to produce or otherwise procure animal health products at lower costs than us and the ability of competitors to access more or newer technology than us.

Our R&D relies on evaluations of animals, which may become subject to bans, additional restrictive regulations or increased attention from activism movements.

We are required to evaluate the effect of our product candidates in animals. Animal testing in certain industries has been the subject of controversy and adverse publicity. Some organizations and individuals have attempted to ban animal testing or encourage the adoption of new regulations applicable to animal testing. To the extent that the activities of such organizations and individuals are successful, our R&D, and by extension our business, financial condition and results of operations, could be materially adversely affected. In addition, negative publicity about us or our industry could harm our reputation. For example, farm animal producers may experience decreased demand for their products or reputational harm as a result of evolving consumer views of animal rights, nutrition, health-related or other concerns. Any reputational harm to the farm animal industry may also extend to companies in related industries, including our Company. Adverse consumer views related to the use of one or more of our product candidates in farm animals also may result in a decrease in the use of such products and could have a material adverse effect on our operating results and financial condition.

Use of social media could give rise to liability or reputational harm.

We and our employees use social media to communicate externally. There is risk that the use of social media by us or our employees to communicate about our product candidates or business may give rise to liability, lead to the loss of trade secrets or other intellectual property or result in public exposure of personal information of our employees, clinical trial patients, customers, and others. Furthermore, negative posts or comments about us or our product candidates in social media could seriously damage our reputation, brand image, and goodwill. Any of these events could have a material adverse effect on our business, prospects, operating results, and financial condition and could adversely affect the price of our Common Stock.

We are at risk of litigation.

We are party to an arbitration dispute with AEGLE Partners, 2 LLC. Additionally, in the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Additionally, on January 4, 2022 we terminated our former Chief Executive Officer for cause, and do not believe that we owe him any severance payments.

Even if we successfully defend against these claims, litigation could result in substantial costs place a significant strain on our financial resources, divert the attention of management from our core business and harm our reputation.

Risks Related to Our Common Stock

The Company is not in compliance with Nasdaq's continued listing requirements. If we are unable to comply with Nasdaq's continued listing requirements, our Common Stock could be delisted, which could affect our Common Stock's market price and liquidity and reduce our ability to raise capital.

Our Common Stock is currently listed on the Nasdaq Capital Market. Nasdaq imposes, among other requirements, continued listing standards including minimum bid, public float and stockholders' equity requirements.

As we previously disclosed on May 26, 2023, we received a notification letter from Nasdaq on May 23, 2023, notifying the Company that it was not in compliance with the stockholders' equity requirement of \$2,500,000, as set forth in Nasdaq Listing Rule 5550(b). On May 30, 2023, the Company requested a hearing with the Nasdaq Hearings Panel, which was held on July 13, 2023. At the hearing, the Company presented its plan to regain compliance with the Stockholders' Equity Rule.

On August 4, 2023, the Company received a notification letter from the Nasdaq notifying the Company that the Nasdaq Hearings Panel has granted the Company's request to provide an extension until November 20, 2023, to regain compliance with the Stockholders' Equity Rule for continued listing on Nasdaq. The Panel further noted that the Exception Period for continued listing is subject to a filing of a registration statement on Form S-1 by the Company with the SEC on or before October 5, 2023, which was satisfied by our filing of the Registration Statement on Form S-1 on October 4, 2023. The Nasdaq Hearings Panel concluded that the Exception Period is justified in this case in light of the Company's efforts to resolve its current equity deficiency and the steps we have taken thus far to prepare for regaining compliance. The Nasdaq Hearings Panel further noted that it does not view the Company's continued listing during the exception period to be an undue risk to the financial markets nor prospective investors.

In addition, during the Exception Period, the Nasdaq Hearings Panel reserves the right to reconsider the terms of this exception based on any event, condition or circumstance that exists or develops that would, in the opinion of the Nasdaq Hearings Panel, make continued listing of the Company's securities on Nasdaq inadvisable or unwarranted. Furthermore, until the end of the Exception Period, the Company is required to provide prompt notification to the Nasdaq Hearings Panel of any significant events that may affect the Company's compliance with Nasdaq requirements.

We intend to regain compliance with the Stockholders' Equity Rule prior to the end of the Exception Period set forth in the Panel's Decision. However, until Nasdaq has reached a final determination that the Company has regained compliance with the applicable Nasdaq requirements, there can be no assurances regarding the continued listing of the Company's securities on Nasdaq. The delisting of our securities from Nasdaq would have a material adverse effect on our access to capital markets, and any limitation on market liquidity or reduction in the price of our Common Stock as a result of that delisting would adversely affect our ability to raise capital on terms acceptable to us, if at all.

The market price and trading volume of our securities may be volatile and may be affected by economic conditions beyond our control.

The market price of our securities is likely to be volatile. Some specific factors that could negatively affect the price of our securities or result in fluctuations in its price and trading volume include:

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- results of trials of our product candidates;
- results of trials of our competitors' products;
- regulatory actions with respect to our therapeutic candidates or products or our competitors' products;
- actual or anticipated fluctuations in our quarterly operating results or those of our competitors;
- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- issuances by us of debt or equity securities;
- litigation involving our Company, including stockholder litigation; investigations or audits by regulators into the operations of our company; or proceedings initiated by our competitors or clients;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- trading volume of our common stock;
- announcement or expectation of additional financing efforts;
- terrorist acts, acts of war or periods of widespread civil unrest;
- natural disasters and other calamities;
- changes in market conditions for biotech or agtech stocks;
- influence of retail investors and/or social media on our common stock, such as a massive short squeeze rally; and
- conditions in the U.S. financial markets or changes in general economic conditions.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of June 30, 2023, our largest shareholder, HEP Investments, LLC ("HEP" or "HEP Investments"), beneficially owns approximately 16.3% of our Common Stock. Therefore, HEP Investments will have the ability to influence us through this ownership position. This stockholder may be able to determine all matters requiring stockholder approval, including elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that an individual may believe are in the stockholders' best interest.

Our management has identified certain internal control deficiencies, which management believes constitute material weaknesses. Our failure to establish and maintain an effective system of internal controls could result in material misstatements of our financial statements or cause us to fail to meet our reporting obligations or fail to prevent fraud in which case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our common stock.

We review and update our internal controls, disclosure controls and procedures, and corporate governance policies as our Company continues to evolve. In addition, we are required to comply with the internal control evaluation and certification requirements of Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX") and management is required to report annually on our internal control over financial reporting. Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 of SOX until the date we are no longer a "smaller reporting company" as defined by applicable SEC rules.

Our management's evaluation of the effectiveness of our internal controls over financial reporting as of December 31, 2022 concluded that our controls were not effective, due to material weaknesses resulting from an ineffective overall control environment. The material weaknesses stem primarily from our small size and include the inability to (i) maintain appropriately designed information technology general controls in the areas of user access, vendor management controls, and segregation of duties, including controls over the recording of journal entries, related to certain information technology systems that support the Company's financial reporting process; and (ii) design and maintain effective controls over complex accounting areas and related disclosures including income tax, stock-based compensation, and deferred research and development obligations - participation agreements. Specifically, management did not identify controls over the review of the tax provision, including the valuation analysis relating to deferred tax assets, considerations for uncertain tax positions, the preparation of income tax footnote and required disclosures and selecting and applying accounting policies, proper review of the financial statements and the application of GAAP relating to the accounting and classification of deferred research and development obligations - participation agreements. Management did not identify controls over the review of stock-based compensation, including the valuation of options granted under the Company's equity-based compensation plans.

The effects of the accounting errors related to stock-based compensation and income taxes resulted in a revision of our 2022 Annual Report. Please see "Note 2 - Revision of Previously Issued Financial Statements" in our 2022 Annual Report for more information.

Such shortcomings could have an adverse effect on our business and financial results. Any system of internal controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system are met. Any failure or circumvention of the controls and procedures or failure to comply with regulation concerning control and procedures could have a material effect on our business, results of operation and financial condition. Any of these events could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements, which ultimately could negatively affect the market price of our shares, increase the volatility of our stock price and adversely affect our ability to raise additional funding. The effect of these events could also make it more difficult for us to attract and retain qualified persons to serve on our Board and as executive officers.

Subject to limitations on liquidity, the Company is planning to take steps to remediate these material weaknesses. However, we cannot assure you that any of the measures we implement to remedy any such deficiencies will effectively mitigate or remedy such deficiencies.

As a smaller reporting company, we are subject to scaled disclosure requirements that may make it more challenging for investors to analyze our results of operations and financial prospects.

Currently, we are a "smaller reporting company," as defined by Rule 12b-2 of the Exchange Act. As a "smaller reporting company," we are able to provide simplified executive compensation disclosures in our filings and have certain other decreased disclosure obligations in our filings with the SEC, including being required to provide only two years of audited financial statements in annual reports. Consequently, it may be more challenging for investors to analyze our results of operations and financial prospects.

Furthermore, we are a non-accelerated filer as defined by Rule 12b-2 of the Exchange Act, and, as such, are not required to provide an auditor attestation of management's assessment of internal control over financial reporting, which is generally required for SEC reporting companies under Section 404(b) of the Sarbanes-Oxley Act. Because we are not required to, and have not, had our auditor provide an attestation of our management's assessment of internal control over financial reporting, a material weakness in internal controls may remain undetected for a longer period.

Our annual and quarterly operating results may fluctuate significantly or may fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline.

We expect our operating results to be subject to annual and quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expenses related to our product candidates, products or future development programs;
- if any of our product candidates receives regulatory approval, the level of underlying demand for these product candidates and wholesalers' buying patterns;
- addition or termination of trials or funding support;
- our execution of any collaborative, licensing or similar arrangements, and the timing of payments we may make or receive under these arrangements;
- any intellectual property infringement lawsuit in which we may become involved;
- regulatory developments affecting our products or those of our competitors;
- the timing and cost of, and level of investment in, research and development activities relating to our product candidates, which may change from time to time;
- our ability to attract, hire and retain qualified personnel;
- expenditures that we will or may incur to acquire or develop additional product candidates and technologies;
- future accounting pronouncements or changes in our accounting policies; and
- the timing and success or failure of clinical studies for our therapeutic candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners.

If our annual or quarterly operating results fall below the expectations of investors or securities analysts, the price of our securities could decline substantially. Furthermore, any annual or quarterly fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially. We believe that annual and quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

Future sales and issuances of our common stock or rights to purchase our common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell our common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell our common stock, convertible securities or other equity securities in more than one transaction, investors may be materially diluted by subsequent sales. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We have never declared or paid any cash dividends on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

USE OF PROCEEDS

Assuming we sell all Common Stock offered pursuant to this prospectus, we estimate that our net proceeds from the sale of Common Stock by us in this Offering will be approximately \$7.1 million, based on an assumed offering price of \$ 2.73 per share and accompanying Common Warrant, assuming no sale of any Pre-Funded Warrants and no exercise of the Common Warrants issued in connection with this Offering, after deducting Placement Agent fees and estimated offering expenses payable by us. However, because this is a best efforts offering and there is no minimum offering amount required as a condition to the closing of this Offering, the actual offering amount, Placement Agent's fees and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus.

We expect to use the proceeds that we receive from this Offering as follows:

Use of Proceeds	
Proceeds:	
Gross Proceeds	\$ 8,000,000
Fees and Expenses	(877,262)
Net Proceeds	<u>\$ 7,122,738</u>
Uses:	
Agtech - Research and Development	\$ 1,700,000
Biotech - Research and Development	\$ 1,700,000
Working Capital	3,722,738
Total Uses	<u>\$ 7,122,738</u>

These expected uses represent our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials, and any unforeseen cash needs. As a result, our management will have broad discretion in the application of the net proceeds from this Offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds from this Offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business.

Accordingly, our management will have discretion and flexibility in applying the net proceeds of this Offering.

CAPITALIZATION

The following table presents a summary of our cash and cash equivalents and capitalization as of June 30, 2023:

- on an actual basis;
- on a *pro forma* basis to give effect to: (i) the issuance and sale by us of 171,666 shares of our Common Stock in a registered direct offering at a public offering price of \$16.02 per share and pre-funded warrants at a price of \$16.0199 per pre-funded warrant to purchase up to an aggregate of 78,021 shares of Common Stock which closed on July 5, 2023 (net of offering expenses); (ii) the issuance, in a concurrent private placement on June 30, 2023, of Series A Common Warrants to purchase up to an aggregate of 249,688 shares of Common Stock, at an exercise price of \$16.80 per share and Series B Common Warrants to purchase up to an aggregate of 249,688 shares of Common Stock, at an exercise price of \$16.80 per share; and
- on a *pro forma* as adjusted basis giving effect to the sale and the issuance of shares of Common Stock and Common Warrants to purchase Common Stock in this Offering at an assumed public offering price of \$ 2.73 per share and accompanying Common Warrant, after deducting Placement Agent fees and other estimated offering expenses payable by us. The as adjusted basis assumes no Pre-Funded Warrants are sold in this Offering and excludes the proceeds, if any, from the exercise of any Common Warrants issued in this Offering. The as adjusted also includes the repayment in full of \$775,320 of short term loan net of discount.

You should read this capitalization table together with the section titled “Use of Proceeds” in this prospectus, and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes included in our 2022 Annual Report and our Form 10-Q, which are incorporated by reference in this prospectus.

Capitalization in U.S. Dollars	As of June 30, 2023		
	Actual (unaudited)	Pro Forma	Pro Forma As Adjusted
Assets			
Cash	\$ 21,067	\$ 3,656,030	\$ 10,778,768
Liabilities			
Total debt, net of discount	\$ 1,351,765	\$ 1,351,765	\$ 576,445
Stockholders’ Equity (Deficit)			
Common Stock, \$0.001 par value, 25,000,000 shares authorized; actual: 1,569,943 shares issued and outstanding as of June 30, 2023; pro forma: 1,741,610 shares issued and outstanding; pro forma as adjusted: shares issued and outstanding.	1,570	1,742	4,672
Additional paid-in capital	116,701,842	120,336,633	127,456,441
Accumulated deficit	(119,848,244)	(119,848,244)	(119,848,244)
Total Stockholders’ Equity (Deficit)	(3,144,832)	490,131	7,612,869
Capitalization	\$ 1,793,067	\$ 1,841,896	\$ 8,189,314

A \$0.25 increase or decrease in the assumed public offering price of \$2.73 per share, which is the official closing price of our Common Stock on Nasdaq on October 27, 2023, would increase or decrease each of our as-adjusted cash, total stockholders’ equity and total capitalization by approximately \$0.7 million, assuming the number of shares of Common Stock offered by us, as set forth on the cover page of this prospectus, remains the same, assuming no sale of any Pre-Funded Warrants and no exercise of the Common Warrants issued in connection with this offering, and after deducting placement agent fees and estimated offering expenses payable by us. Similarly, each increase or decrease of 100,000 in the number of shares of Common Stock offered by us would increase or decrease each of our as-adjusted cash, total stockholders’ equity and total capitalization by approximately \$0.3 million, assuming the assumed public offering price of \$2.73 per share, which is the official closing price of our Common Stock on Nasdaq on October 27, 2023, remains the same, assuming no sale of any Pre-Funded Warrants and no exercise of the Common Warrants issued in connection with this offering, and after deducting placement agent fees and estimated offering expenses payable by us.

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The table and discussion set forth in the table above are based on 1,741,610 shares of Common Stock outstanding as of September 30, 2023 and excludes:

- 292,592 shares of our Common Stock issuable upon the exercise of outstanding stock options as of September 30, 2023, with an approximate weighted-average exercise price of \$35.58 per share;
- 226,644 shares of our Common Stock issuable upon the exercise of unregistered warrants outstanding as of September 30, 2023 with an approximate weighted-average exercise price of \$38.52 per share;
- 495,916 shares of our Common Stock issuable upon exercise of registered warrants outstanding as of September 30, 2023 with an approximate weighted-average exercise price of \$33.00 per share;
- 78,021 shares of our Common Stock issuable upon exercise of pre-funded warrants sold to a single institutional investor outstanding as of September 30, 2023;
- 249,688 shares of our Common Stock issuable upon exercise of Series A Warrants sold to a single institutional investor outstanding as of September 30, 2023;
- 249,688 shares of our Common Stock issuable upon exercise of Series B Warrants sold to a single institutional investor outstanding as of September 30, 2023; and
- 91,548 shares of our Common Stock reserved for future issuance under our 2021 Plan as of June 30, 2023.

The capitalization as further adjusted does not assume proceeds from the exercise of the Common Warrants issued in this Offering. Furthermore, the accounting treatment of Common Warrants has not been finalized as of the date hereof. The accounting treatment of the Common Warrant is being evaluated to assess if the arrangement qualifies as an equity classified instrument or a liability classified instrument. If the arrangement is required to be accounted for as a liability, then the Common Warrant will be recognized as a liability at fair value upon the closing and remeasured to fair value at each balance sheet date in the future reporting periods with changes in fair value recorded in the consolidated statement of operations.

The capitalization assumes no sale of Pre-Funded Warrants in this Offering, which, if sold, would reduce the number of Common Stock that we are offering on a one-for-one basis.

MARKET FOR OUR COMMON STOCK

Our Common Stock and certain of our outstanding warrants trade on Nasdaq under the symbol “ZIVO” and “ZIVOW”, respectively.

Holders

As of September 30, 2023, there were approximately 219 holders of record of our Common Stock. The number of holders of record is based on the actual number of holders registered on the books of our transfer agent and does not reflect holders of shares in “street name” or persons, partnerships, associations, corporations, or other entities identified in security position listings maintained by depository trust companies.

Dividend Policy

We have never declared or paid cash dividends on our Common Stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our Common Stock in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

DILUTION

If you invest in the Securities being offered by this prospectus, your interest will be diluted immediately to the extent of the difference between the public offering price per share of Common Stock and the adjusted net tangible book value per share of our Common Stock after this Offering.

The historical net tangible book deficit of our Common Stock as of June 30, 2023, was approximately \$(3.1) million, or approximately \$(2.00) per share based on 1,569,943 shares outstanding as of such date. Net tangible book deficit per share represents the amount of our total tangible assets, excluding goodwill and intangible assets, less total liabilities, divided by the total number of shares of our Common Stock outstanding. Dilution per share to new investors represents the difference between the effective amount per share paid by purchasers for each share of Common Stock in this Offering and the net tangible book value per share of our Common Stock immediately following the completion of this Offering.

Our pro forma net tangible book value of our Common Stock as of June 30, 2023, was approximately \$0.5 million, or approximately \$0.28 per share, after giving effect to: (i) the issuance and sale by us of 171,666 shares of our Common Stock in a registered direct offering at a public offering price of \$16.02 per share and pre-funded warrants at a price of \$16.01999 per pre-funded warrant to purchase up to an aggregate of 78,021 shares of Common Stock on June 30, 2023; (ii) the issuance, in a concurrent private placement on June 30, 2023, of Series A Common Warrants to purchase up to an aggregate of 249,688 shares of Common Stock, at an exercise price of \$16.80 per share and Series B Common Warrants to purchase up to an aggregate of 249,688 shares of Common Stock, at an exercise price of \$16.80 per share. Our pro forma net tangible book value gives effect to the issuance in this Offering of shares of Common Stock, at an assumed public offering price of \$2.73 per share and accompanying Common Warrant, after deducting Placement Agent fees and other estimated offering expenses payable by us.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers in this Offering and the net tangible book value per share of our Common Stock immediately after this Offering. After giving effect to the sale of shares of Common Stock in this Offering at an assumed public offering price of \$ 2.73 per share and accompanying Common Warrant, and after deducting the Placement Agent fees and the estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2023 would have been approximately \$(2.00) per share of Common Stock. This represents an immediate increase in net tangible book value of \$2.28 per share to our existing stockholders and an immediate dilution of \$1.10 per share to investors purchasing shares of Common Stock in this Offering. Amounts do not include exercise of Common Warrants in this Offering and no sale of Pre-Funded Warrants in this Offering, which, if sold, would reduce the number of shares of Common Stock that we are offering on a one-for-one basis.

Assumed public offering price per share of Common Stock	\$	2.73
Historical Net tangible book value per share at June 30, 2023	\$	(2.00)
Increase in pro forma net tangible book value per share of common stock attributable to registered direct offering and a concurrent private placement on June 30, 2023	\$	2.28
Increase to pro forma net tangible book deficit per share attributable to investors purchasing our Common Stock in this Offering		1.35
Pro forma net tangible book value per share as of June 30, 2023, after giving effect to this Offering	\$	1.63
Dilution per share to investors purchasing our Common Stock in this Offering	\$	1.10

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The table and discussion set forth in the table above are based on 1,741,610 shares of Common Stock outstanding as of September 30, 2023 and assumes (i) no sale of Pre-Funded Warrants in this Offering, which, if sold, would reduce the number of Common Stock that we are offering on a one-for-one basis, (ii) no exercise of the Common Warrants issued in this Offering, and excludes:

- 292,529 shares of our Common Stock issuable upon the exercise of outstanding stock options as of September 30, 2023, with an approximate weighted-average exercise price of \$35.58 per share;
- 226,644 shares of our Common Stock issuable upon the exercise of unregistered warrants outstanding as of September 30, 2023 with an approximate weighted-average exercise price of \$38.52 per share;
- 495,916 shares of our Common Stock issuable upon exercise of registered warrants outstanding as of September 30, 2023 with an approximate weighted-average exercise price of \$33.00 per share;
- 78,021 shares of our Common Stock issuable upon exercise of pre-funded warrants sold to a single institutional investor outstanding as of September 30, 2023;
- 249,688 shares of our Common Stock issuable upon exercise of Series A Warrants sold to a single institutional investor outstanding as of September 30, 2023;
- 249,688 shares of our Common Stock issuable upon exercise of Series B Warrants sold to a single institutional investor outstanding as of September 30, 2023; and
- 91,548 shares of our Common Stock reserved for future issuance under our 2021 Plan as of September 30, 2023.

Each \$0.25 increase (decrease) in the assumed public offering price of \$ 2.73 per share of Common Stock would increase (decrease) our pro forma as adjusted net tangible book value per share after this Offering by approximately \$ 0.15, and the dilution per share to new investors purchasing shares in this Offering by \$0.10, assuming the number of shares of Common Stock offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting Placement Agent fees and estimated offering expenses payable by us, assuming no sale of any Pre-Funded Warrants and no exercise of the Common Warrants issued in connection with this Offering. Similarly, each increase (decrease) of 100,000 in the number of shares of Common Stock offered by us would increase (decrease) the pro forma net tangible book value, as adjusted to give effect to this Offering, by \$(0.02) per share, and the dilution to new investors by \$0.02 per share. The information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this Offering as determined between us and the Placement Agent at pricing. Furthermore, the accounting treatment of Common Warrants has not been finalized as of the date hereof. The accounting treatment of the Common Warrant is being evaluated to assess if the arrangement qualifies as an equity classified instrument or a liability classified instrument. If the arrangement is required to be accounted for as a liability, then the Common Warrant will be recognized as a liability at fair value upon the closing and remeasured to fair value at each balance sheet date in the future reporting periods with changes in fair value recorded in the consolidated statement of operations.

To the extent that any of these outstanding options are exercised or warrants are exercised or we issue additional shares under our equity incentive plans, there may be further dilution to new investors. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information regarding each person who is known to us to beneficially own more than 5% of our issued and outstanding shares of Common Stock, and the number of shares of our Common Stock beneficially owned by each of our directors and named executive officers, and all officers and directors as a group. All percentages are based on 1,741,610 shares of Common Stock issued and outstanding as of September 30, 2023, and where applicable, beneficial ownership includes shares which the beneficial owner has the right to acquire within 60 days.

Security Ownership of Certain Beneficial Owners:

Name and Address	Number of Shares Beneficially Owned (1)	% of Class	% After Offering
HEP Investments, LLC 2804 Orchard Lake Rd. Suite 205 Keego Harbor, MI 48302	339,009(2)	19.0%	7.2%
Strome 1688 Meridian Ave, Suite 727 Miami Beach, FL 33139	57,506(3)	3.3%	3.3%
Christopher D. Maggiore 4788 Nobles Pond Dr. NW Canton, OH 44718	152,469(4)(5)(6)	8.7%	3.3%

Security Ownership of Management:

Name and Address	Number of Shares Beneficially Owned (1)	% of Class	% After Offering
Christopher D. Maggiore	152,469(4)(5)(6)	8.7%	7.2%
Andrew A. Dahl	1,387(7)	*	*
John B. Payne	154,171(8)	8.1%	8.1%
Keith Marchiando	60,438(9)	3.4%	1.3%
Nola E. Masterson	15,129(10)	*	*
Alison A. Cornell	32,480(11)	1.8%	*
All current Directors and Officers as a group (5 persons)	602,349(12)	29.8%	12.2%

*** Less than 1%**

- (1) “Beneficially” owned shares, as defined by the SEC, are those shares as to which a person has voting or investment power, or both, and which the beneficial owner has the right to acquire within 60 days. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them. “Beneficial” ownership does not necessarily mean that the named person is entitled to receive the dividends on, or the proceeds from the sale of, the shares.
- (2) Includes 47,727 shares of Common Stock issuable upon the exercise of certain warrants. Laith Yaladoo, the manager and controlling member of HEP Investments, LLC, may be deemed to have voting and dispositive power over the shares held by HEP Investments.

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- (3) Represents shares held by Strome Mezzanine Fund, L.P. ("Strome Mezz"), Mark E. Strome, Strome Alpha Fund, L.P. ("Strome Alpha"), and Strome Investment Management, L.P. ("Strome Investment," and together with Strome Mezz and Strome Alpha, "Strome Group"), the general partner of each of the entities in the Strome Group is Mark E. Strome. Includes 3,125 shares of Common Stock issuable upon the exercise of certain warrants. Mark E. Strome, the sole director, president, and chief executive officer of Strome Group, may be deemed to have voting and dispositive power over the shares held by Strome.
- (4) Pursuant to a Schedule 13D/A filed with the SEC on February 14, 2023, Christopher D. Maggiore has sole power to vote 149,700 shares, sole power to dispose 149,700 shares, shared power to vote 13,576 shares and shared power to dispose 13,576 shares.
- (5) Includes options to purchase 14,962 shares of Common Stock and warrants to purchase 3,383 of shares of Common Stock.
- (6) Includes 13,576 beneficial shares held in the estate of the Robert S. McLain Estate of which Mr. Maggiore is the controlling trustee.
- (7) Mr. Dahl's position as an executive officer of the Company ended in January 2022.
- (8) Includes options to purchase 65,738 shares of Common Stock and warrants to purchase 86,875 shares of Common Stock.
- (9) Includes options to purchase 60,438 shares of Common Stock.
- (10) Includes options to purchase 12,296 shares of Common Stock and warrants to purchase 2,083 shares of Common Stock.
- (11) Includes options to purchase 32,480 shares of Common Stock.
- (12) Includes options to purchase 185,914 shares of Common Stock and warrants to purchase 92,341 shares of Common Stock.

DESCRIPTION OF SECURITIES

Our authorized capital stock consists of consists of 25,000,000 Common Stock, \$0.001 par value. As of the date of this prospectus, there were 1,741,610 shares of Common Stock outstanding.

We are offering our Common Stock, together with a Common Warrant to purchase one share of our Common Stock, at an assumed public offering price of \$2.73 per share.

We are also offering to each purchaser whose purchase of Common Stock in this Offering would otherwise result in the purchaser, together with its affiliates, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this Offering, the opportunity to purchase, if the purchaser so chooses, Pre-Funded Warrants in lieu of Common Stock that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stocks. For each pre-funded warrant we sell (without regard to any limitation on exercise set forth therein), the number of Common Stock we are offering will be decreased on a one-for-one basis. Because one Common Warrant is being sold together in this Offering with each Common Stock or, in the alternative, each Pre-Funded Warrants to purchase one Common Stock, the number of Common Warrants sold in this Offering will not change as a result of a change in the mix of the Common Stock and Pre-Funded Warrants sold.

We are also registering the Common Stock and the Common Stock issuable from time to time upon exercise of the Pre-Funded Warrants and Common Warrants. The shares of our Common Stock and/or Pre-Funded Warrants and the Common Warrants are immediately separable and will be issued separately in this Offering.

Common Stock

Holders of Common Stock are entitled to one vote per share on all matters submitted to a vote of the stockholders. Our holders of Common Stock do not have cumulative voting rights. Holders of Common Stock will be entitled to receive ratably such dividends as may be declared by the Board of Directors out of funds legally available therefor, which may be paid in cash, property, or in shares of the Company's capital stock. Upon liquidation, dissolution or winding up of the Company, either voluntarily or involuntarily, the holders of Common Stock will be entitled to receive their ratable share of the net assets of the Company legally available for distribution after payment of all debts and other liabilities. There are no conversion, preemptive or other subscription rights and there are no sinking fund or redemption provisions applicable to the Common Stock.

Common Warrants

The following summary of certain terms and provisions of the Common Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Common Warrants, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Common Warrant for a complete description of the terms and conditions of the Common Warrants.

Overview. Certain provisions of the Common Warrants are set forth herein but are only a summary and are qualified in their entirety by the relevant provisions of the form of Common Warrant, which is filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of Common Warrant.

The Common Warrants issued in this Offering entitle the holder to purchase one share of our Common Stock at a price equal to \$2.73 per share, subject to adjustment as discussed below.

Exercisability. The Common Warrants are exercisable at any time after their original issuance and at any time up to the date that is five (5) years after their original issuance. The Common Warrants may be exercised by delivering a duly executed exercise notice on or prior to the expiration date at the offices of the Company, accompanied by full payment of the exercise price, by certified or official bank check payable to the Company, for the number of Common Warrants being exercised. Under the terms of the Common Warrants, we must use our best efforts to maintain the effectiveness of the registration statement and current prospectus relating to Common Stock issuable upon exercise of the Common Warrants until the expiration of the Common Warrants. If we fail to maintain the effectiveness of the registration statement and current prospectus relating to the Common Stock issuable upon exercise of the Common Warrants, the holders of the Common Warrants shall have the right to exercise the Common Warrants solely via a cashless exercise feature provided for in the Common Warrants, until such time as there is an effective registration statement and current prospectus. The Common Warrant also provides for automatic cashless exercise on the Termination Date, as defined therein.

Exercise Limitation. A holder may not exercise any portion of a Common Warrant to the extent that the holder, together with its affiliates and any other person or entity acting as a group, would own more than 4.99% of the outstanding Common Stock after exercise, as such percentage ownership is determined in accordance with the terms of the Common Warrant, except that the holder may waive such limitation up to a percentage not in excess of 9.99%.

Exercise Price. The exercise price per whole share of Common Stock purchasable upon exercise of the Common Warrants is \$ per share. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our Common Stock and also upon any distributions of assets, including cash, stock or other property to our stockholders. However, the Common Warrants will not be adjusted for issuances of Common Stock at prices below its exercise price.

Fractional Shares. No fractional shares of Common Stock will be issued upon exercise of the Common Warrants. If, upon exercise of the Common Warrant, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, pay a cash adjustment in respect of such fraction in an amount equal to such fraction multiplied by the exercise price. If multiple Common Warrants are exercised by the holder at the same time, we shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

Transferability. Subject to applicable laws, the Common Warrants may be offered for sale, sold, transferred or assigned without our consent.

Fundamental Transactions. In the event of a fundamental transaction, as described in the Common Warrants and generally including any reorganization, recapitalization or reclassification of our Common Stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding Common Stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding Common Stock, upon any subsequent exercise of the Common Warrants, the holders of the Common Warrants will be entitled to receive the kind and amount of securities, cash or other property that the holders would have received had they exercised the U Common nit Warrants immediately prior to such fundamental transaction. Additionally, in the event of a fundamental transaction, we or any successor entity will, at the option of the holder of a Common Warrant exercisable at any time concurrently with or within 30 days after the consummation of the fundamental transaction (or, if later, the date of the public announcement thereof), purchase the Common Warrant from the holder by paying to the holder an amount of consideration equal to the value of the remaining unexercised portion of such Common Warrant on the date of consummation of the fundamental transaction based on the Black-Scholes option pricing model, determined pursuant to a formula set forth in the Common Warrants. The consideration paid to the holder will be the same type or form of consideration that was offered and paid to the holders of common stock in connection with the fundamental transaction; provided that if no such consideration was offered or paid, the holders of common stock will be deemed to have received common stock of the successor entity in such fundamental transaction for purposes of this provision of the Common Warrants.

Rights as a Stockholder. The warrant holders do not have the rights or privileges of holders of Common Stock or any voting rights until they exercise their Common Warrants and receive shares of Common Stock. After the issuance of shares of Common Stock upon exercise of the Common Warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

Governing Law. The Common Warrants are governed by New York law.

Amendment to Outstanding Common Warrants

In connection with this offering, we may amend the terms of outstanding common warrants to purchase up to 499,376 shares of our Common Stock, which were previously issued to reduce the exercise price of such warrants to equal the exercise price of the Common Warrants sold in this offering, and to extend the term during which those warrants could remain exercisable to the term of the Common Warrants sold in this offering.

Pre-Funded Warrants

The following summary of certain terms and provisions of Pre-Funded Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Pre-Funded Warrant, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Pre-Funded Warrant for a complete description of the terms and conditions of the Pre-Funded Warrants.

We are also offering to each purchaser whose purchase of Common Stock in this Offering would otherwise result in the purchaser, together with its affiliates, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this Offering, the opportunity to purchase, if the purchaser so chooses, Pre-Funded Warrants in lieu of Common Stock that would otherwise result in the purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock. For each Pre-Funded Warrants we sell (without regard to any limitation on exercise set forth therein), the number of Common Stock we are offering will be decreased on a one-for-one basis.

Exercisability. The Pre-Funded Warrants are exercisable at any time after their original issuance until they are exercised in full. Each of the Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the common shares underlying the Pre-Funded Warrants under the Securities Act of 1933, as amended (the "Securities Act") is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of common shares purchased upon such exercise. If a registration statement registering the issuance of the common shares underlying the Pre-Funded Warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the Pre-Funded Warrants through a cashless exercise, in which case the holder would receive upon such exercise the net number of common shares determined according to the formula set forth in the Pre-Funded Warrant. No fractional common shares will be issued in connection with the exercise of a Pre-Funded Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

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Exercise Limitation. A holder will not have the right to exercise any portion of the Pre-Funded Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, upon election by a holder prior to the issuance of any Pre-Funded Warrants, 9.99%) of the number of shares of our common shares outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, upon at least 61 days' prior notice from the holder to us with respect to any increase in such percentage.

Exercise Price. The exercise price for the Pre-Funded Warrants is \$0.001 per share.

Transferability. Subject to applicable laws, the Pre-Funded Warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. We do not intend to apply for the listing of the Pre-Funded Warrants offered in this Offering on any stock exchange. Without an active trading market, the liquidity of the Pre-Funded Warrants will be limited.

Rights as a Shareholder. Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder's ownership of our common shares, the holder of a Pre-Funded Warrants does not have the rights or privileges of a holder of our common shares, including any voting rights, until the holder exercises the warrant.

Fundamental Transactions. In the event of a fundamental transaction, as described in the Pre-Funded Warrants and generally including, with certain exceptions, any reorganization, recapitalization or reclassification of our common shares, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common shares, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common shares, the holders of the Pre-Funded Warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.

Governing Law. The Pre-Funded Warrants are governed by New York law.

Other Convertible Securities

As of July 30, 2023, in addition to the securities described above, there are (i) 232,110 options have been issued under the 2021 Plan, and 91,548 shares remained available for issuance and (ii) 130,208 stock options had been issued under the 2019 Plan with terms between 5 years and 10 years, of which 60,937 remained outstanding.

Dividends

We have not declared or paid any dividends on our Common Stock since our inception and do not anticipate paying dividends for the foreseeable future. The payment of dividends is subject to the discretion of our Board of Directors and will depend, among other things, upon our earnings, our capital requirements, our financial condition, and other relevant factors. We intend to reinvest any earnings in the development and expansion of our business. Any cash dividends in the future to common stockholder will be payable when, as and if declared by our Board of Directors, based upon the board's assessment of our financial condition and performance, earnings, need for funds, capital requirements, prior claims of preferred stock to the extent issued and outstanding, and other factors, including income tax consequences, restrictions and applicable laws. There can be no assurance, therefore, that any dividends on our Common Stock will ever be paid.

Anti-Takeover Effects of Provision of our Articles of Incorporation, Bylaws and Nevada Law

The following is a brief description of the provisions in our Articles of Incorporation, Bylaws and Nevada Law that could have an effect of delaying, deferring, or preventing a change in control of the Company.

Anti-Takeover Effects of Nevada Law

Business Combinations

We are a Nevada corporation and are generally governed by the Nevada Private Corporations Code, Title 78 of the Nevada Revised Statutes, or “NRS”.

The “business combination” provisions of Sections 78.411 to 78.444, inclusive, of the NRS, generally prohibit a Nevada corporation with at least 200 stockholders from engaging in various “combination” transactions with any interested stockholder for a period of two years after the date of the transaction in which the person became an interested stockholder, unless the transaction is approved by the board of directors prior to the date the interested stockholder obtained such status or the combination is approved by the board of directors and thereafter is approved at a meeting of the stockholders by the affirmative vote of stockholders representing at least 60% of the outstanding voting power held by disinterested stockholders, and extends beyond the expiration of the two-year period, unless:

- the combination was approved by the board of directors prior to the person becoming an interested stockholder or the transaction by which the person first became an interested stockholder was approved by the board of directors before the person became an interested stockholder or the combination is later approved by a majority of the voting power held by disinterested stockholders; or
- price per share paid by the interested stockholder within the two years immediately preceding the date of the announcement of the combination or in the transaction in which it became an interested stockholder, whichever is higher, (a) the market value per share of Common Stock on the date of announcement of the combination and the date the interested stockholder acquired the shares, whichever is higher, or (b) for holders of preferred stock, the highest liquidation value of the preferred stock, if it is higher.

A “combination” is generally defined to include mergers or consolidations or any sale, lease exchange, mortgage, pledge, transfer, or other disposition, in one transaction or a series of transactions, with an “interested stockholder” having: (a) an aggregate market value equal to 5% or more of the aggregate market value of the assets of the corporation, (b) an aggregate market value equal to 5% or more of the aggregate market value of all outstanding shares of the corporation, (c) 10% or more of the earning power or net income of the corporation, and (d) certain other transactions with an interested stockholder or an affiliate or associate of an interested stockholder.

In general, an “interested stockholder” is a person who, together with affiliates and associates, owns (or within two years, did own) 10% or more of a corporation’s voting stock. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire our Company even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Control Share Acquisitions

The “control share” provisions of Sections 78.378 to 78.3793, inclusive, of the NRS apply to “issuing corporations” that are Nevada corporations with at least 200 stockholders, including at least 100 stockholders of record who are Nevada residents, and that conduct business directly or indirectly in Nevada. The control share statute prohibits an acquirer, under certain circumstances, from voting its shares of a target corporation’s stock after crossing certain ownership threshold percentages, unless the acquirer obtains approval of the target corporation’s disinterested stockholders. The statute specifies three thresholds: one-fifth or more but less than one-third, one-third but less than a majority, and a majority or more, of the outstanding voting power.

Generally, once an acquirer crosses one of the above thresholds, those shares in an offer or acquisition and acquired within 90 days thereof become “control shares” and such control shares are deprived of the right to vote until disinterested stockholders restore the right. These provisions also provide that if control shares are accorded full voting rights and the acquiring person has acquired a majority or more of all voting power, all other stockholders who do not vote in favor of authorizing voting rights to the control shares are entitled to demand payment for the fair value of their shares in accordance with statutory procedures established for dissenters’ rights.

A corporation may elect to not be governed by, or “opt out” of, the control share provisions by making an election in its articles of incorporation or bylaws, provided that the opt-out election must be in place on the 10th day following the date an acquiring person has acquired a controlling interest, that is, crossing any of the three thresholds described above. We have not opted out of the control share statutes, and will be subject to these statutes if we are an “issuing corporation” as defined in such statutes.

The effect of the Nevada control share statutes is that the acquiring person, and those acting in association with the acquiring person, will obtain only such voting rights in the control shares as are conferred by a resolution of the stockholders at an annual or special meeting. The Nevada control share law, if applicable, could have the effect of discouraging takeovers of our Company.

Number of Directors; Vacancies; Removal

Our Bylaws provide that our Board of Directors may fix the number of directors at no less than one and no more than nine. Any vacancy on the Board of Directors may be filled by the affirmative vote of a majority of the remaining directors though less than a quorum of the Board of Directors. A director elected to fill a vacancy shall be elected for the unexpired term of his predecessor in office, and shall hold such office until his successor is duly elected and qualified. Any directorship to be filled by reason of an increase in the number of directors shall be filled by the affirmative vote of a majority of the directors then in office or by an election at an annual meeting, or at a special meeting of stockholders called for that purpose. A director chosen to fill a position resulting from an increase in the number of directors shall hold office only until the next election of directors by the stockholders.

Our Bylaws provide that any director or directors of the corporation may be removed from office at any time, with or without cause, by the vote or written consent of stockholders representing not less than a majority of the issued and outstanding capital stock entitled to voting power.

Authorized Shares

Without any action by our shareholders, we may increase or decrease the aggregate number of shares or the number of shares of any class we have authority to issue at any time. The board shall have authority to establish more than one class or series of shares of this corporation, and the different classes and series shall have such relative rights and preferences, with such designations, as the board may by resolution provide. Issuance of such a new class or series could, depending upon the terms of the class or series, delay, defer, or prevent a change of control of the Company.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our Bylaws contain advance notice provisions that a stockholder must follow if it intends to bring business proposals or director nominations, as applicable, before a meeting of stockholders. These provisions may preclude our stockholders from bringing matters before the annual meeting of stockholders or from making nominations at the annual meeting of stockholders.

No Cumulative Voting

Holders of our Common Stock do not have cumulative voting rights in the election of Directors. The absence of cumulative voting may make it more difficult for shareholders owning less than a majority of our Common Stock to elect any Directors to our Board of Directors.

Limitation on Liability and Indemnification of Directors and Officers

Section 78.138 of the NRS provides that, unless the corporation's articles of incorporation provide otherwise, a director or officer will not be individually liable unless it is proven that (i) the director's or officer's acts or omissions constituted a breach of his or her fiduciary duties, and (ii) such breach involved intentional misconduct, fraud, or a knowing violation of the law.

Section 78.7502 of the NRS permits a company to indemnify its directors and officers against expenses, judgments, fines, and amounts paid in settlement actually and reasonably incurred in connection with a threatened, pending, or completed action, suit, or proceeding, if the officer or director (i) is not liable pursuant to NRS 78.138, or (ii) acted in good faith and in a manner the officer or director reasonably believed to be in or not opposed to the best interests of the corporation and, if a criminal action or proceeding, had no reasonable cause to believe the conduct of the officer or director was unlawful. Section 78.7502 of the NRS requires a corporation to indemnify a director or officer that has been successful on the merits or otherwise in defense of any action or suit. Section 78.7502 of the NRS precludes indemnification by the corporation if the officer or director has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court determines that in view of all the circumstances, the person is fairly and reasonably entitled to indemnity for such expenses and requires a corporation to indemnify its officers and directors if they have been successful on the merits or otherwise in defense of any claim, issue, or matter resulting from their service as a director or officer.

Section 78.751 of the NRS permits a Nevada company to indemnify its officers and directors against expenses incurred by them in defending a civil or criminal action, suit, or proceeding as they are incurred and in advance of final disposition thereof, upon determination by the stockholders, the disinterested board members, or by independent legal counsel. If so provided in the corporation's articles of incorporation, bylaws, or other agreement, Section 78.751 of the NRS requires a corporation to advance expenses as incurred upon receipt of an undertaking by or on behalf of the officer or director to repay the amount if it is ultimately determined by a court of competent jurisdiction that such officer or director is not entitled to be indemnified by the company. Section 78.751 of the NRS further permits the company to grant its directors and officers additional rights of indemnification under its articles of incorporation, bylaws, or other agreement.

Section 78.752 of the NRS provides that a Nevada company may purchase and maintain insurance or make other financial arrangements on behalf of any person who is or was a director, officer, employee, or agent of the company, or is or was serving at the request of the company as a director, officer, employee, or agent of another company, partnership, joint venture, trust, or other enterprise, for any liability asserted against him and liability and expenses incurred by him in his capacity as a director, officer, employee, or agent, or arising out of his status as such, whether or not the company has the authority to indemnify him against such liability and expenses.

We have entered into indemnification agreements with each of our officers and directors to provide indemnification to the fullest extent permitted by the NRS against expense, liability, and loss reasonably incurred or suffered by them in connection with their service as an officer or director. The agreements provide for advance costs and expenses incurred with respect to any proceeding to which a person is made a party as a result of being a director or officer prior to or after final disposition of such proceeding upon receipt of an undertaking by or on behalf of the director or officer to repay such amount if it is ultimately determined that such person is not entitled to indemnification. We may purchase and maintain liability insurance, or make other arrangements for such obligations or otherwise, to the extent permitted by the NRS.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to the Company's directors, officers or controlling persons pursuant to the provisions described above, or otherwise, the Company has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is Issuer Direct Corporation.

Listing

Our Common Stock and certain of our outstanding warrants trade on Nasdaq under the symbol "ZIVO" and "ZIVOW", respectively.

SHARES AVAILABLE FOR FUTURE SALES

Future sales of our Common Stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, the sale of a portion of our shares will be limited after this Offering due to contractual and legal restrictions on resale. Nevertheless, sales of our Common Stock in the public market after such restrictions, lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on 1,741,610 shares of our Common Stock outstanding as of September 30, 2023, upon the completion of this Offering, 4,672,012 shares of our Common Stock will be outstanding, assuming shares of Common Stock are issued in this Offering and assuming we sell only shares of Common Stock and accompanying Common Warrants and no Pre-Funded Warrants and none of the Common Warrants issued in this offering are exercised.

Except for shares subject to lock-up agreement, substantially all of our outstanding shares will be freely tradable except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

Rule 144

In general, under Rule 144 of the Securities Act, as in effect on the date of this prospectus, any person who is not our affiliate at any time during the preceding three months, and who has beneficially owned the relevant shares of our Common Stock for at least six months, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares of our Common Stock into the public markets provided current public information about us is available, and, after owning such shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares of our Common Stock into the public markets without restriction.

A person who is our affiliate or who was our affiliate at any time during the preceding three months, and who has beneficially owned restricted securities for at least six months, including the affiliates, is entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- % of the number of shares of our Common Stock then outstanding, which will equal approximately shares immediately following this Offering, based on the number of shares of our Common Stock outstanding as of September 30, 2023; or
- the average weekly trading volume of our Common Stock during the four calendar weeks preceding the filing of a Form 144 notice by such person with respect to such sale, if our class of Common Stock is listed on Nasdaq, the New York Stock Exchange, or the NYSE American.

Sales under Rule 144 by our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Lock-up Agreements

See the section titled "*Plan of Distribution*" below for a detailed discussion.

PLAN OF DISTRIBUTION

Pursuant to a placement agency agreement, we have engaged A.G.P./Alliance Global Partners (the “Placement Agent”) to act as our exclusive placement agent to solicit offers to purchase the securities offered by this prospectus. The Placement Agent is not purchasing or selling any securities, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of securities, other than to use its “reasonable best efforts” to arrange for the sale of the securities by us. Therefore, we may not sell the entire amount of securities being offered. There is no minimum amount of proceeds that is a condition to closing of this Offering.

We will enter into a securities purchase agreement directly with certain investors, at the investor’s option, who purchase our securities in this Offering. Investors who do not enter into a securities purchase agreement shall rely solely on this prospectus in connection with the purchase of our securities in this Offering. The Placement Agent may engage one or more subagents or selected dealers in connection with this Offering.

The placement agency agreement provides that the Placement Agent’s obligations are subject to conditions contained in the placement agency agreement.

We will deliver the securities being issued to the investors upon receipt of investor funds for the purchase of the securities offered pursuant to this prospectus. We expect to deliver the securities being offered pursuant to this prospectus on or about , 2023, subject to the satisfaction of customary closing conditions.

Placement Agent Fees, Commissions and Expenses

Upon the closing of this Offering, we will pay the Placement Agent a cash transaction fee equal to 7.0% of the aggregate gross cash proceeds to us from the sale of the securities in the offering. In addition, we will reimburse the Placement Agent for its out-of-pocket expenses incurred in connection with this Offering, including the fees and expenses of the counsel for the Placement Agent, up to \$75,000.

The following table shows the public offering price, Placement Agent fees and proceeds, before expenses, to us.

	Per Share and Common Warrant	Per Pre- Funded Warrant and Common Warrant	Total
Public offering price			
Placement agent fees ⁽¹⁾			
Proceeds, before expenses, to us ⁽²⁾			

- (1) We have agreed to pay the Placement Agent a cash placement commission equal to 7% of the aggregate proceeds from this Offering. We have also agreed to reimburse the Placement Agent for certain expenses incurred in connection with this Offering.
- (2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the Pre-Funded Warrants or Common Warrants being issued in this Offering.

We estimate that the total expenses of the offering payable by us, including will be registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding Placement Agent fees, will be approximately \$317,260, \$2,900 of which was paid in advance for anticipated accountable expenses and will be returned to us to the extent such accountable expenses are not actually incurred in accordance will be with FINRA Rule 5110(g)(4)(A). This figure includes the Placement Agent’s accountable expenses, including, but not limited to, legal fees for Placement Agent’s legal counsel, that we have agreed to pay at the closing of the offering.

Lock-Up Agreements

We, each of our officers and directors, and holder(s) of five percent (5%) or more of the outstanding common stock as of the date of this prospectus have agreed, subject to certain exceptions, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any of our common stock or other securities convertible into or exercisable or exchangeable for our common stock for a period of 90 days after this Offering is completed without the prior written consent of the Placement Agent.

The Placement Agent may in its sole discretion and at any time without notice release some or all of the shares subject to lock-up agreements prior to the expiration of the lock-up period. When determining whether or not to release shares from the lock-up agreements, the Placement Agent will consider, among other factors, the security holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time.

Listing

Our Common Stock and certain of our outstanding warrants trade on Nasdaq under the symbol "ZIVO" and "ZIVOW", respectively.

Indemnification

We have agreed to indemnify the Placement Agent against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the Placement Agent may be required to make for these liabilities.

Determination of Offering Price and Exercise Price

The actual public offering price of the securities we are offering, and the exercise price of the Common Warrants and the Pre-Funded Warrants that we are offering, will be negotiated between us and the investors in the offering based on the trading of our Common Stock prior to the offering, among other things. Other factors considered in determining the public offering price of the securities we are offering, as well as the exercise price of the Common Warrants and the Pre-Funded Warrants that we are offering, will include the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, the general conditions of the securities markets at the time of the offering and such other factors as are deemed relevant.

Regulation M

The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the Placement Agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the Placement Agent acting as principal. Under these rules and regulations, the Placement Agent (i) may not engage in any stabilization activity in connection with our securities and (ii) may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the Placement Agent. In connection with the offering, the Placement Agent or selected dealers may distribute prospectuses electronically. No forms of electronic prospectus other than prospectuses that are printable as Adobe® PDF will be used in connection with this Offering.

Other than the prospectus in electronic format, the information on the Placement Agent's website and any information contained in any other website maintained by the Placement Agent is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the Placement Agent in its capacity as placement agent and should not be relied upon by investors.

Certain Relationships

The Placement Agent and its affiliates have and may in the future provide, from time to time, investment banking and financial advisory services to us in the ordinary course of business, for which they may receive customary fees and commissions.

Selling Restrictions

Canada. The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31 103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33 105 Underwriting Conflicts (NI 33 105), the Placement Agent is not required to comply with the disclosure requirements of NI 33-105 regarding underwriters conflicts of interest in connection with this Offering.

European Economic Area. In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any securities may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by us or any underwriters of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase any securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom. The Placement Agent has represented and agreed that it:

- has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the FSMA) received by it in connection with the issue or sale of the securities in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

Switzerland. The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the SIX) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the investor protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of securities.

Australia. No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (ASIC), in relation to the offering.

This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the Corporations Act) and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the securities may only be made to persons (the Exempt Investors) who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the securities without disclosure to investors under Chapter 6D of the Corporations Act.

The securities applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring securities must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in the Cayman Islands. No invitation, whether directly or indirectly, may be made to the public in the Cayman Islands to subscribe for our securities.

Taiwan. The securities have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the securities in Taiwan.

Notice to Prospective Investors in Hong Kong. The contents of this prospectus have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this prospectus, you should obtain independent professional advice. Please note that (i) our shares may not be offered or sold in Hong Kong, by means of this prospectus or any document other than to “professional investors” within the meaning of Part I of Schedule 1 of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) (SFO) and any rules made thereunder, or in other circumstances which do not result in the document being a “prospectus” within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong) (CO) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO, and (ii) no advertisement, invitation or document relating to our shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” within the meaning of the SFO and any rules made thereunder.

Notice to Prospective Investors in the People’s Republic of China. This prospectus may not be circulated or distributed in the People’s Republic of China (“PRC”) and the securities may not be offered or sold, and will not offer or sell to any person for re-offering or resale directly or indirectly to any resident of the PRC except pursuant to applicable laws, rules and regulations of the PRC. For the purpose of this paragraph only, the PRC does not include Taiwan and the special administrative regions of Hong Kong and Macau.

Israel. This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this document is being distributed only to, and is directed only at, and any offer of the securities is directed only at, investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals,” each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Fennemore Craig, P.C., Reno, Nevada and Honigman LLP, Detroit, Michigan. Sullivan & Worcester LLP, New York, New York is acting as counsel for the Placement Agent in this Offering.

EXPERTS

The consolidated financial statements of Zivo Bioscience, Inc. as of December 31, 2022 and 2021 and for the years then ended incorporated by reference in this Prospectus have been so incorporated in reliance on the report of BDO USA, LLP, (n/k/a BDO USA, P.C.) an independent registered public accounting firm, incorporated herein by reference given on the authority of said firm as experts in auditing and accounting. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company’s ability to continue as a going concern.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” in this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information we incorporate by reference is an important part of this prospectus, and certain information that we will later file with the SEC will automatically update and supersede this information. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed.

We incorporate by reference into this prospectus and the registration statement of which this prospectus forms a part the information or documents listed below that we have filed with the SEC, and any future filings we will make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act (other than information furnished under Item 2.02 or Item 7.01 of Form 8-K or Schedule 14A), including all filings filed pursuant to the Exchange Act after the date of the registration statement and prior to effectiveness of the registration statement, and following effectiveness of the registration statement and until the termination or completion of the offering of the securities covered by this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on [March 14, 2023](#);
- our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2023, filed with the SEC on [May 10, 2023](#), and for the quarter ended June 30, 2023, filed on [August 14, 2023](#);
- our Current Reports on Form 8-K filed with the SEC on [February 10, 2023](#), [April 5, 2023](#), [May 26, 2023](#), [June 16, 2023](#), [July 6, 2023](#), [August 9, 2023](#), and [October 26, 2023](#); and
- the description of our Common Stock contained in our Registration Statement on Form 8-A initially filed on [May 27, 2021](#), including any amendment or report filed for the purpose of updating such description.

As a smaller reporting company, we also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of this prospectus, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. Requests should be directed to:

Zivo Bioscience, Inc.
21 East Long Lake Road, Suite 100,
Bloomfield Hills, Michigan 48304
Telephone: (248) 452-9866

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement. Any statement contained herein or in any document incorporated or deemed to be incorporated by reference shall be deemed to be modified or superseded for purposes of the registration statement of which this prospectus forms a part to the extent that a statement contained in any other subsequently filed document which also is or is deemed to be incorporated by reference modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed to constitute a part of the registration statement of which this prospectus forms a part, except as so modified or superseded.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act relating to the offering of these securities. The registration statement, including the attached exhibits and schedules, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information respecting our Company and the shares offered by this prospectus, you should refer to the registration statement, including the exhibits and schedules thereto.

We file annual, quarterly and other reports, proxy statements and other information with the SEC. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can be accessed free of charge through the Internet. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at <http://www.sec.gov>. You may access the registration statement of which this prospectus is a part at the SEC's Internet site.

We make available through our website, free of charge, copies of our SEC filings as soon as reasonably practicable after we electronically file or furnish them to the SEC on our Internet site, www.zivobioscience.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.



Up to 2,930,402 shares of Common Stock
Pre-Funded Warrants to Purchase up to 2,930,402 shares of Common Stock
Common Warrants to Purchase up to 2,930,402 shares of Common Stock
Up to 2,930,402 shares of Common Stock Underlying the Pre-Funded Warrants
Up to 2,930,402 shares of Common Stock Underlying the Common Warrants

PROSPECTUS

Sole Placement Agent

A.G.P.

, 2023

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all expenses to be paid by the Registrant, other than Placement Agent fees, upon the completion of this Offering. All amounts shown are estimates except for the SEC registration fee and the FINRA filing fee.

SEC registration fee	\$ 881.60
FINRA filing fee	2,900.00
Legal fees and expenses	200,000.00
Accounting fees and expenses	50,000.00
Printing and engraving expenses	50,000.00
Transfer agent and registrar fees	2,000.00
Miscellaneous expenses	10,000.00
Total	\$ 317,261.60

Item 14. Indemnification of Directors and Officers.

We are incorporated in Nevada. Section 78.7502(1) of the NRS, provides that a corporation may indemnify, pursuant to that statutory provision, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he is not liable pursuant to NRS 78.138 or if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. NRS 78.138(7) provides that, subject to limited statutory exceptions and unless the articles of incorporation or an amendment thereto (in each case filed on or after October 1, 2003) provide for greater individual liability, a director or officer is not individually liable to the corporation or its stockholders or creditors for any damages as a result of any act or failure to act in his or her capacity as a director or officer unless the presumption established by NRS 78.138(3) has been rebutted and it is proven that (i) his or her act or failure to act constituted a breach of his or her fiduciary duties as a director or officer, and (ii) such breach involved intentional misconduct, fraud or a knowing violation of the law.

NRS 78.7502(2) permits a corporation to indemnify, pursuant to that statutory provision, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above against expenses, including amounts paid in settlement and attorneys' fees actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he acted under similar standards, except that no indemnification pursuant to NRS 78.7502 may be made in respect of any claim, issue or matter as to which such person shall have been adjudged by a court of competent jurisdiction, after any appeals taken therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which such action or suit was brought or other court of competent jurisdiction determines that, in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper. NRS 78.751(1) provides that a corporation shall indemnify any person who is a director, officer, employee or agent of the corporation, against expenses actually and reasonably incurred by the person in connection with defending an action (including, without limitation, attorney's fees), to the extent that the person is successful on the merits or otherwise in defense of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, including, without limitation, an action by or in the right of the corporation, by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or any claim, issue or matter in such action.

NRS 78.751 provides that the indemnification pursuant to NRS 78.7502 shall not be deemed exclusive or exclude any other rights to which the indemnified party may be entitled (except that indemnification may not be made to or on behalf of any director or officer finally adjudged by a court of competent jurisdiction, after exhaustion of any appeals taken therefrom, to be liable for intentional misconduct, fraud or a knowing violation of the law and such intentional misconduct, fraud or a knowing violation of the law was material to the cause of action) and that the indemnification shall continue as to directors, officers, employees or agents who have ceased to hold such positions, and to their heirs, executors and administrators. NRS 78.752 permits a corporation to purchase and maintain insurance on behalf of a director, officer, employee or agent of the corporation against any liability asserted against him or her or incurred by him or her in any such capacity or arising out of his or her status as such whether or not the corporation would have the power to indemnify him or her against such liabilities.

Bylaws

Our bylaws include express provisions providing for the indemnification of our directors and officers to the fullest extent permitted under the NRS, and the mandatory payment by us of expenses incurred by such persons in defending a civil or criminal action, suit or proceeding in advance of the final disposition of the action, suit or proceeding, upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined that such person is not entitled to be indemnified by us. Our bylaws also permit us to purchase and maintain insurance or make other financial arrangements on behalf of any such person for certain liability and expenses, whether or not we have the authority to indemnify such person against such liability and expenses.

See also the undertakings set out in response to Item 17 herein.

Item 15. Recent Sales of Unregistered Securities.

The following is a summary of all securities that we have issued since January 1, 2020 without registration under the Securities Act of 1933, as amended (the “Securities Act”):

Common Stock:

Name	Form	Date	Common Stock Shares	Amount Received
Alex Oakes	Warrant exercise from Warrant transfer	13-Jan-20	12,500	\$100,000
Santa Marina Group	Conversion of loan payable and accrued interest	15-Jan-20	8,514	\$68,113
Apregan Family Trust	Conversion of loan payable and accrued interest	15-Jan-20	8,514	\$68,113
Thomas Cox	Warrant exercise (cashless)	17-Jan-20	1,286	-
Minish Joe Hede	Warrant exercise (cashless)	17-Jan-20	609	-
Cory Mann	Warrant exercise (cashless)	17-Jan-20	21,562	-
Timothy Eliot-Cone	Warrant exercise from Warrant transfer	27-Jan-20	6,250	\$50,000
Santa Marina Group	Warrant exercise	27-Jan-20	62	\$500
Apregan Family Trust	Warrant exercise	27-Jan-20	62	\$500
Nicholas Stone	Warrant exercise from Warrant transfer	11-Feb-20	6,250	\$50,000
Michael Gildea	Warrant exercise from Warrant transfer	18-Feb-20	12,500	\$100,000
Jascha Raadtgever	Warrant exercise from Warrant transfer	28-Feb-20	3,125	\$25,000
John Katoula	Purchase of Common Stock	09-Mar-20	1,953	\$25,000

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Javier Abreu	Warrant exercise from Warrant transfer	17-Mar-20	6,250	\$50,000
Nola Masterson	Warrant exercise (cashless)	08-Apr-20	3,977	-
Cory Mann	Warrant exercise	14-Apr-20	23,437	\$150,000
Michael Silverstein	Warrant exercise from Warrant transfer	08-May-20	625	\$4,400
Jeanye Irwin	Warrant exercise from Warrant transfer	11-May-20	6,250	\$50,000
Cory Mann	Warrant exercise (cashless)	26-Jun-20	193	-
Nola Masterson	Warrant exercise (cashless)	27-Aug-20	520	-
Christopher Maggiore	Warrant exercise	15-Sep-20	2,500	\$20,000
Christopher Maggiore	Warrant exercise (cashless)	15-Sep-20	46	-
Philip Rice	Warrant exercise (cashless)	15-Sep-20	176	
John Payne	Warrant exercise (cashless)	21-Sep-20	176	
Yun il yi	Purchase of Common Stock	07-Oct-20	12,500	\$100,000
Christopher Maggiore	Purchase of Common Stock	21-Oct-20	156	\$1,254
Alex Oakes	Purchase of Common Stock	22-Oct-20	5,000	\$40,000
Steve Kalabat	Purchase of Common Stock	22-Oct-20	1,875	\$15,000
Platform Securities Nominees Ltd	Purchase of Common Stock	23-Oct-20	7,500	\$60,000
Penelope Mountbatten	Purchase of Common Stock	27-Oct-20	6,250	\$50,000
Novtek International Ltd.	Warrant exercise from Warrant transfer		31,250	
Phil Rice	Warrant exercise (cashless)	20-Nov-20	291	
Fergus Wright	Purchase of Common Stock	08-Feb-21	2,678	\$30,000
Edward Yaldao	Purchase of Common Stock	08-Feb-21	4,464	\$50,000
Meldelson Family Investments, LLC.	Purchase of Common Stock	08-Feb-21	6,696	\$75,000
Jonny Creagh-Cohen,	Purchase of Common Stock	10-Feb-21	4,464	\$50,000
Nicholas Sibley	Purchase of Common Stock	23-Feb-21	24,038	\$250,000
Damian Sibley	Purchase of Common Stock	23-Feb-21	24,038	\$250,000
Isaya Sasiprapha	Purchase of Common Stock	23-Feb-21	2,172	\$24,329
Nutriquest LLC	Purchase of Common Stock	23-Feb-21	918	\$10,283
Voormolen	Purchase of Common Stock	23-Feb-21	2,232	\$25,000
Phil Rice	Warrant exercise (cashless)	17-Mar-21	287	
Derek Montgomery LLC	Purchase of Common Stock	25-Mar-21	3,125	\$35,000
James Byrne	Purchase of Common Stock	17-Mar-21	8,928	\$100,000
David Mendelson	Purchase of Common Stock	22-Mar-21	13,392	\$150,000
RBI Private Investments III	Purchase of Common Stock	24-Mar-21	8,928	\$100,000
KIM D	Purchase of Common Stock	8-Apr-21	1,785	\$20,000
KIM M	Purchase of Common Stock	8-Apr-21	1,785	\$20,000
KIM C	Purchase of Common Stock	8-Apr-21	2,678	\$30,000
KIM K	Purchase of Common Stock	8-Apr-21	892	\$10,000
KIM W	Purchase of Common Stock	8-Apr-21	4,464	\$50,000
LEE Y	Purchase of Common Stock	8-Apr-21	892	\$10,000
CHOI M	Purchase of Common Stock	8-Apr-21	892	\$10,000
Eliot-Cohen	Purchase of Common Stock	13-Apr-21	4,807	\$50,000
Hanna	Purchase of Common Stock	14-Apr-21	8,928	\$100,000
Luz Investments	Purchase of Common Stock	22-Apr-21	4,464	\$50,000
Sridharan	Purchase of Common Stock	23-Apr-21	6,696	\$75,000
River Integrity Investments LLC	Warrant exercise (cashless)	16-Apr-21	299	
Phil Rice	Warrant exercise (cashless)	4-May-21	234	
Cypress Cove	Warrant exercise (cashless)	30-Apr-21	53,828	
Corprominence LLC	Share issuance	12-Aug-21	5,000	N/A
Corprominence LLC	Share issuance	01-Nov-21	2,500	N/A

Warrant Issuances:

Name	Date	Exercise Price	Shares Underlying Warrant	Consideration
Ted Kennedy	04/13/20	\$9.60	3,750	Per Co-Development Participation Agreement
Pok Chang	04/13/20	\$9.60	5,625	Per Co-Development Participation Agreement
Young Chang	04/13/20	\$9.60	5,625	Per Co-Development Participation Agreement
Johnny Karmo	05/07/20	\$9.60	9,375	Per Co-Development Participation Agreement
Jeffery Mendelson	06/01/20	\$8.80	10,312	Per Co-Development Participation Agreement
Sarah B Kornblum Living Trust	06/03/20	\$8.80	8,437	Per Co-Development Participation Agreement
David Richmond	07/08/20	\$9.60	3,750	Per Co-Development Participation Agreement
Veyo Partners LLC	08/17/20	\$9.60	1,875	Service as Consultant
Norman Yaldao	08/24/20	\$9.60	4,687	Per Co-Development Participation Agreement
Chitayat-Mahboubian Family Trust	09/14/20	\$9.60	5,625	Per Co-Development Participation Agreement
Emanuel Mansour	09/15/20	\$9.60	1,875	Per Co-Development Participation Agreement
John Mansour	09/15/20	\$9.60	1,875	Per Co-Development Participation Agreement
Veyo Partners LLC	09/18/20	\$9.60	1,875	Service as Consultant
Veyo Partners LLC	09/18/20	\$9.60	1,875	Service as Consultant
Perry Johnson	09/25/20	\$9.60	5,625	Per Co-Development Participation Agreement
John Payne	09/30/20	\$9.60	125,000	Service on Board of Directors
Nola Masterson	09/30/20	\$9.60	6,250	Service on Board of Directors
Robert Rondeau	09/30/20	\$9.60	6,250	Service on Board of Directors
Chris Maggiore	09/30/20	\$9.60	6,250	Service on Board of Directors
HEP Investments	10/04/20	\$9.60	3,750	Per Co-Development Participation Agreement
Sea Green	10/04/20	\$9.60	9,375	Per Co-Development Participation Agreement
Mark Strome	10/08/20	\$9.60	18,750	Per Co-Development Participation Agreement
J Abreu Investments LLC	10/09/20	\$9.60	1,875	Per Co-Development Participation Agreement
Julian Leese	11/24/20	\$8.00	37,500	Service as Consultant
Julian Leese	11/24/20	\$9.60	6,250	Service as Consultant
Pat Kennedy	12/16/20	\$9.60	375	Per Co-Development Participation Agreement
Travis Heidt	01/22/21	\$11.20	1,500	Per Co-Development Participation Agreement
HEP Investments	01/25/21	\$11.20	1,500	Per Co-Development Participation Agreement
Mendelson Family Investments, LLC	01/27/21	\$11.20	937	Per Co-Development Participation Agreement
MKY FTS Sales LLC	05/14/21	\$10.40	1,687	Per Co-Development Participation Agreement
Armistice Capital	07/05/23	\$2.80	1,498,130	Private Placement
Armistice Capital	07/05/23	\$2.80	1,498,130	Private Placement

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. We believe the offers, sales and issuances of the above securities were exempt from registration under the Securities Act by virtue of Section 4(a)(2) of the Securities Act because the issuance of securities to the recipients did not involve a public offering, or in reliance on Rule 701 because the transactions were pursuant to compensatory benefit plans or contracts relating to compensation as provided under such rule. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about Zivo Bioscience, Inc. (“Zivo”).

Item 16. Exhibits and Financial Statement Schedules.

(a) See the Exhibit Index on the page immediately preceding the signature page hereto for a list of exhibits filed as part of this registration statement on Form S-1, which Exhibit Index is incorporated herein by reference.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that, paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the Offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser, if the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the Offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the Offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the Offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the Offering made by the undersigned registrant to the purchaser.
- (2) for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (i) The undersigned registrant hereby undertakes that:
 - (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
 - (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

(a) Exhibits

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
3.1	Articles of Incorporation of the Registrant as amended (previously filed as Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 22, 2011)
3.2	Certificate of Amendment to Articles of Incorporation dated October 16, 2014 (previously filed as Exhibit 3.12 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2014)
3.3	Certificate to Amendment dated May 28, 2021 (previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on June 2, 2021)
3.4	Certificate of Amendment dated October 25, 2023 (previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on October 26, 2023)
3.5	Amended and Restated By-laws of the Registrant (previously filed as Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 17, 2010)
3.6	Second Amended and Restated By-laws of the Registrant (previously Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on July 7, 2022)
4.1	Form of Series A Common Warrant (previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on July 6, 2023)
4.2	Form of Series B Common Warrant (previously filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K, filed on July 6, 2023)
4.3	Form of Pre-Funded Warrant (previously filed as Exhibit 4.3 to the Registrant's Current Report on Form 8-K, filed on July 6, 2023)
4.4*	Form of Common Stock Purchase Warrant
4.5*	Form of Pre-Funded Warrant
5.1	Opinion of Fennemore Craig, P.C. (previously filed as Exhibit 5.1 to the Registrant's Registration Statement on Form S-1, filed on October 4, 2023)
5.2	Opinion of Honigman LLP (previously filed as Exhibit 5.2 to the Registrant's Registration Statement on Form S-1, filed on October 4, 2023)
10.1+	2019 Omnibus Long-Term Incentive Plan (previously filed as Exhibit 10.34 to the Registrant's Annual Report on Form 10-K filed on March 26, 2020)
10.1.1+	Stock Option Grant Notice for 2019 Omnibus Long-Term Incentive Plan (previously filed as Exhibit 10.37 to the Registrant's Annual Report on Form 10-K filed on March 26, 2020)
10.2+	2021 Equity Incentive Plan (previously filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on February 16, 2022)
10.3	Supply Chain Agreement with Aegle Partners 2 LLC, dated February 27, 2019 (previously filed as Exhibit 10.38 to the Registrant's Registration Statement on Form S-1/A filed on May 26, 2021)

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<u>10.3.1</u>	<u>First Amendment to Supply Chain Agreement with Aegle Partners 2 LLC, dated September 14, 2019 (previously filed as Exhibit 10.39 to the Registrant's Registration Statement on Form S-1/A filed on May 26, 2021)</u>
<u>10.3.2</u>	<u>Second Amendment to Supply Chain Agreement with Aegle Partners 2 LLC, dated November 24, 2020 (previously filed as Exhibit 10.40 to the Registrant's Registration Statement on Form S-1/A filed on May 26, 2021)</u>
<u>10.4+</u>	<u>Employment Agreement, dated as of February 15, 2022, by and between John Payne and the Company (previously filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed on February 16, 2022)</u>
<u>10.4.1+</u>	<u>Amendment No. 1 to Employment Agreement, dated as of December 16, 2022, by and between John Payne and the Company (previously filed as Exhibit 10.4.1 to the Registrants Registration Statement on Form S-1 filed on March 22, 2023)</u>
<u>10.5+</u>	<u>Letter Agreement between Keith Marchiando and Zivo Bioscience, Inc., dated January 1, 2021 (previously filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on January 7, 2021)</u>
<u>10.6</u>	<u>Form of Paulson Convertible Note (previously filed as Exhibit 10.45 to the Registrant's Registration Statement on Form S-1/A filed on May 26, 2021)</u>
<u>10.7</u>	<u>Form of Shapiro Convertible Note (previously filed as Exhibit 10.46 to the Registrant's Registration Statement on Form S-1/A filed on May 26, 2021)</u>
<u>10.8</u>	<u>Zivo Bioscience, Inc. Non-Employee Director Compensation Policy (previously filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 15, 2021)</u>

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10.9	Stock Option Grant Notice and Agreement to Zivo Bioscience, Inc. 2021 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 filed with the Securities and Exchange Commission on November 15, 2021)
10.10	Form of Securities Purchase Agreement, dated June 20, 2023 (previously filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed on July 6, 2023)
10.11*	Form of Securities Purchase Agreement
10.12*	Form of Lock-Up Agreement
10.13*	Form of Placement Agency Agreement
21.1	Subsidiaries of the Registrant (previously filed as Exhibit 21.1 to the Registrant Annual Report on Form 10-K on March 14, 2023)
23.1*	Consent of BDO USA, P.C.
23.2	Consent of Fennemore Craig, P.C. (included in Exhibit 5.1 hereto)
23.3	Consent of Honigman, LLP (included in Exhibit 5.2 hereto)
24.1	Power of Attorney (previously filed as Exhibit 24.1 to the Registrant's Registration Statement on Form S-1, filed on October 4, 2023)
107	Filing Fee Table (previously filed as Exhibit 107 to the Registrant's Registration Statement on Form S-1, filed on October 4, 2023)
101.INS*	Inline XBRL Instance Document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

+ Indicates a management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Bloomfield Hills, State of Michigan, on October 31, 2023.

ZIVO BIOSCIENCE, INC.

By: /s/ Keith Marchiando
Keith Marchiando
Chief Financial Officer, and Secretary

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>*</u> John B. Payne	President, Chief Executive Officer, and Director (Principal Executive Officer)	October 31, 2023
<u>/s/ Keith Marchiando</u> Keith Marchiando	Chief Financial Officer, and Secretary (Principal Accounting and Financial Officer)	October 31, 2023
<u>*</u> Christopher Maggiore	Director	October 31, 2023
<u>*</u> Nola Masterson	Director	October 31, 2023
<u>*</u> Alison A. Cornell	Director	October 31, 2023
<u>*By: /s/ Keith Marchiando</u> Keith Marchiando Attorney-in-fact		October 31, 2023

WARRANT TO PURCHASE SHARES OF COMMON STOCK

ZIVO BIOSCIENCE, INC.

Warrant Shares: _____

Initial Exercise Date: _____

THIS WARRANT TO PURCHASE SHARES OF COMMON STOCK (this “Warrant”) certifies that, for value received, _____ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on the five-year anniversary of the Initial Exercise Date (the “Termination Date”) but not thereafter, to subscribe for and purchase from Zivo Bioscience, Inc., a Nevada corporation (the “Company”), up to _____ shares of Common Stock, par value \$0.001 per share (the “Common Stock”), of the Company (as subject to adjustment hereunder, the “Warrant Shares”). The purchase price of one Warrant Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the “Purchase Agreement”), dated [*], 2023, among the Company and the purchasers signatory thereto.

Section 2. Exercise.

(a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form attached hereto as **Exhibit A** (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the number of Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares purchasable hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder by the number of Warrant Shares equal to the applicable number of Warrant Shares purchased in connection with such partial exercise. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Purchase Agreement, the Company agrees to deliver, or cause to be delivered, the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date (as defined below) for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

(b) Exercise Price. The exercise price under this Warrant shall be \$[*] per share of Common Stock, subject to adjustment hereunder (the "Exercise Price").

(c) Cashless Exercise. Notwithstanding anything to the contrary set forth herein, if at the time of exercise hereof there is no effective registration statement registering the issuance of the Warrant Shares to the Holder, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (x) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (y) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c), except to the extent required by applicable law, rules or regulations.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price (VWAP) of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

(d) Mechanics of Exercise.

(i) Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent (as defined below) to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company (“DTC”) through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of the Warrant Shares, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date applicable to such exercise, the Holder may upon written demand to the Company require the Company to pay (and the Company shall pay) to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent (the “Transfer Agent”) that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

(ii) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(iii) Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise by delivering written notice to the Company at any time prior to the Company delivering such Warrant Shares.

(iv) Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any failure solely due to any action or inaction by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Warrant Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver, but did not timely deliver, to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrants with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof.

(v) No Fractional Shares or Scrip. No fractional Warrant Shares or scrip representing fractional Warrant Shares shall be issued upon the exercise of this Warrant. As to any fraction of a Warrant Share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, and in lieu of the issuance of such fractional Warrant Shares, either (i) pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or (ii) round up to the next whole Warrant Share.

(vi) Charges, Taxes and Expenses. The issuance and delivery of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto as **Exhibit B**, duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto, and this Warrant shall be surrendered to the Company and, if any portion of this Warrant remains unexercised, a new Warrant in the form hereof shall be delivered to the assignee. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to DTC (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

(vii) Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

(e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise all or any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance upon exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates, (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of the Warrant Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of such determination and shall have no liability for exercises of this Warrant that are not in compliance with the Beneficial Ownership Limitation (other than to the extent that information on the number of outstanding shares of Common Stock is provided by the Company, either directly or through one or more public filings, and relied upon by the Holder). In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of this Warrant that are not in compliance with the Beneficial Ownership Limitation (other than to the extent that information on the number of outstanding shares of Common Stock is provided by the Company, either directly or through one or more public filings, and relied upon by the Holder). For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, at the election of the Holder prior to the issuance of this Warrant, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall not be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Warrant Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant remains unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification.

(b) [RESERVED]

(c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (other than dividends or distributions subject to Section 3(a)) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person and the Company is not the surviving entity, (ii) the Company (or any Subsidiary), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of the consolidated assets of the Company in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding voting securities, or (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (each, a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within thirty (30) days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. “Black Scholes Value” means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the five (5) trading days immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five (5) Business Days of the Holder’s election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

(f) [RESERVED]

(g) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share of Common Stock, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(h) Notice to Holder.

(i) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

(ii) Notice to Allow Exercise by Holder. If, while the Warrant is outstanding, (A) the Company declares a dividend (or any other distribution in whatever form) on the shares of Common Stock, (B) the Company declares a cash dividend on or a redemption of the shares of Common Stock, (C) the Company authorizes the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company is required in connection with a Fundamental Transaction, or (E) the Company authorizes the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

(iii) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the sole discretion of the board of directors of the Company.

Section 4. Transfer of Warrant.

(a) Transferability. Subject to compliance with any applicable securities laws, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant, substantially in the form attached hereto as Exhibit B, duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary

Section 5. Miscellaneous.

(a) Currency. All dollar amounts referred to in this Warrant are in United States Dollars ("U.S. Dollars"). All amounts owing under this Warrant shall be paid in U.S. Dollars. All amounts denominated in other currencies shall be converted in the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "Exchange Rate" means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Warrant, the U.S. Dollar exchange rate as published in the Wall Street Journal (NY edition) on the relevant date of calculation.

(b) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

(c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

(e) Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued shares of Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares underlying the Warrant upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued, and the Warrant Shares, delivered, as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares underlying this Warrant, which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

(g) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and if the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state, federal or foreign securities laws.

(h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(i) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

(j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any share of Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

(m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ZIVO BIOSCIENCE, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: ZIVO BIOSCIENCE, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____

Holder's Signature: _____

Holder's Address: _____

PRE-FUNDED WARRANT TO PURCHASE SHARES OF COMMON STOCK

ZIVO BIOSCIENCE, INC.

Warrant Shares: _____

Initial Exercise Date: _____

THIS PRE-FUNDED WARRANT TO PURCHASE SHARES OF COMMON STOCK (this “Warrant”) certifies that, for value received, _____ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) until this Warrant is exercised in full (the “Termination Date”) but not thereafter, to subscribe for and purchase from Zivo Bioscience, Inc., a Nevada corporation (the “Company”), up to _____ shares of Common Stock, par value \$0.001 per share (the “Common Stock”), of the Company (as subject to adjustment hereunder, the “Warrant Shares”). The purchase price of one Warrant Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the “Purchase Agreement”), dated [*], 2023, among the Company and the purchasers signatory thereto.

Section 2. Exercise.

(a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form attached hereto as **Exhibit A** (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the number of Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares purchasable hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder by the number of Warrant Shares equal to the applicable number of Warrant Shares purchased in connection with such partial exercise. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Purchase Agreement, the Company agrees to deliver, or cause to be delivered, the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date (as defined below) for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

(b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.001 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercise Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be \$0.001, subject to adjustment hereunder (the "Exercise Price").

(c) Cashless Exercise. Notwithstanding anything to the contrary set forth herein, if at the time of exercise hereof there is no effective registration statement registering the issuance of the Warrant Shares to the Holder, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (x) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (y) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c), except to the extent required by applicable law, rules or regulations.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price (VWAP) of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

(d) Mechanics of Exercise.

(i) Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent (as defined below) to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company (“DTC”) through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of the Warrant Shares, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date applicable to such exercise, the Holder may upon written demand to the Company require the Company to pay (and the Company shall pay) to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent (the “Transfer Agent”) that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

(ii) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(iii) Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise by delivering written notice to the Company at any time prior to the Company delivering such Warrant Shares.

(iv) Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any failure solely due to any action or inaction by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Warrant Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver, but did not timely deliver, to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrants with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence with respect to the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof.

(v) No Fractional Shares or Scrip. No fractional Warrant Shares or scrip representing fractional Warrant Shares shall be issued upon the exercise of this Warrant. As to any fraction of a Warrant Share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, and in lieu of the issuance of such fractional Warrant Shares, either (i) pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or (ii) round up to the next whole Warrant Share.

(vi) Charges, Taxes and Expenses. The issuance and delivery of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto as **Exhibit B**, duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto, and this Warrant shall be surrendered to the Company and, if any portion of this Warrant remains unexercised, a new Warrant in the form hereof shall be delivered to the assignee. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to DTC (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

(vii) Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

(e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise all or any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and) any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties"), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of the Warrant Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of such determination and shall have no liability for exercises of this Warrant that are not in compliance with the Beneficial Ownership Limitation (other than to the extent that information on the number of outstanding shares of Common Stock is provided by the Company, either directly or through one or more public filings, and relied upon by the Holder). In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of this Warrant that are not in compliance with the Beneficial Ownership Limitation (other than to the extent that information on the number of outstanding shares of Common Stock is provided by the Company, either directly or through one or more public filings, and relied upon by the Holder). For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, at the election of the Holder prior to the issuance of this Warrant, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall not be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any Warrant Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant remains unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification.

(b) [RESERVED]

(c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (other than dividends or distributions subject to Section 3(a)) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person and the Company is not the surviving entity, (ii) the Company (or any Subsidiary), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of the consolidated assets of the Company in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the voting securities, or (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (each, a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within thirty (30) days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the five (5) trading days immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five (5) Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

(f) [RESERVED]

(g) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share of Common Stock, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(h) Notice to Holder.

(i) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

(ii) Notice to Allow Exercise by Holder. If, while the Warrant is outstanding, (A) the Company declares a dividend (or any other distribution in whatever form) on the shares of Common Stock, (B) the Company declares a cash dividend on or a redemption of the shares of Common Stock, (C) the Company authorizes the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company is required in connection with a Fundamental Transaction, or (E) the Company authorizes the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

(iii) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the sole discretion of the board of directors of the Company.

Section 4. Transfer of Warrant.

(a) Transferability. Subject to compliance with any applicable securities laws, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant, substantially in the form attached hereto as Exhibit B, duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

(c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary

Section 5. Miscellaneous.

(a) Currency. All dollar amounts referred to in this Warrant are in United States Dollars ("U.S. Dollars"). All amounts owing under this Warrant shall be paid in U.S. Dollars. All amounts denominated in other currencies shall be converted in the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "Exchange Rate" means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Warrant, the U.S. Dollar exchange rate as published in the Wall Street Journal (NY edition) on the relevant date of calculation.

(b) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

(c) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(d) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

(e) Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued shares of Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares underlying the Warrant upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued, and the Warrant Shares, delivered, as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares underlying this Warrant, which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(f) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

(g) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and if the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state, federal or foreign securities laws.

(h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(i) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

(j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any share of Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

(l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

(m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ZIVO BIOSCIENCE, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: ZIVO BIOSCIENCE, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____

Holder's Signature: _____

Holder's Address: _____

SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this "Agreement") is dated as of [*], 2023, between Zivo Bioscience, Inc., a Nevada corporation (the "Company"), and each purchaser identified on the signature pages hereto (each, including its successors and assigns, a "Purchaser" and collectively the "Purchasers").

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to an effective registration statement under the Securities Act (as defined below) as to the Shares (as defined below) and the Warrants (as defined below) and the Warrant Shares (as defined below) underlying the Warrants, the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company, securities of the Company as more fully described in this Agreement.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agree as follows:

**ARTICLE I.
DEFINITIONS**

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1:

"Acquiring Person" shall have the meaning ascribed to such term in Section 4.5.

"Action" shall have the meaning ascribed to such term in Section 3.1(j).

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act.

"Auditor" means BDO USA, P.C.

"BHCA" shall have the meaning ascribed to such term in Section 3.1(mm).

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day other than Saturday, Sunday, or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York are generally open for use by customers on such day.

“Closing” means the closing of the purchase and sale of the Securities pursuant to Section 2.1.

“Closing Date” means the Trading Day on which all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all conditions precedent to (i) the Purchasers’ obligations to pay the Subscription Amount at the Closing and (ii) the Company’s obligations to deliver the Securities, in each case, at the Closing have been satisfied or waived, but in no event later than the second (2nd) Trading Day following the date hereof.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Common Warrants” means, collectively, the Common Stock purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which Common Warrants shall be exercisable immediately upon issuance and have a term of exercise equal to five (5) years from the initial exercise date, in substantially the form of Exhibit A attached hereto.

“Company Counsel” means Honigman LLP with offices located at 2290 First National Building, 600 Woodward Avenue, Detroit, MI 48226-3506.

“Disclosure Schedules” means the Disclosure Schedules of the Company delivered concurrently herewith.

“Disclosure Time” means, (i) if this Agreement is signed on a day that is not a Trading Day or after 9:00 a.m. (New York City time) and before midnight (New York City time) on any Trading Day, 9:01 a.m. (New York City time) on the Trading Day immediately following the date hereof, and (ii) if this Agreement is signed between midnight (New York City time) and 9:00 a.m. (New York City time) on any Trading Day, no later than 9:01 a.m. (New York City time) on the date hereof.

“DVP” shall have the meaning ascribed to such term in Section 2.1.

“Environmental Laws” shall have the meaning ascribed to such term in Section 3.1(m).

“Evaluation Date” shall have the meaning ascribed to such term in Section 3.1(s)

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Exempt Issuance” means the issuance of (a) shares of Common Stock or options or other equity awards to employees, officers, directors or consultants of the Company pursuant to any equity incentive plan duly adopted for such purpose, by the administrator administering such plan in accordance with its terms, provided that such securities issued to consultants are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period in Section 4.10(a) herein (b) shares of Common Stock or options to consultants for services rendered to the Company for investor relations services, provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period and that such issuances shall not exceed 250,000 shares of Common Stock (including shares issuable upon the exercise of any options), (c) securities upon the exercise or exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities, (d) securities issued pursuant to acquisitions or strategic transactions or issued in connection with any joint venture, commercial or collaborative relationship, or the acquisition or license by the Company of the securities, business, property or other assets of another person, in each case approved by a majority of the disinterested directors of the Company, provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period in Section 4.10(a) herein, and provided that any such issuance shall only be to a Person (or to the equity holders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company, as determined by the Board of Directors in good faith, and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, and (e) the Securities sold under this Agreement.

“FCPA” means the Foreign Corrupt Practices Act of 1977, as amended.

“Federal Reserve” shall have the meaning ascribed to such term in Section 3.1(mm).

“FINRA” shall have the meaning ascribed to such term in Section 3.1(e).

“GAAP” means generally accepted accounting principles in the United States.

“Hazardous Materials” shall have the meaning ascribed to such term in Section 3.1(m).

“Indebtedness” shall have the meaning ascribed to such term in Section 3.1(aa).

“Intellectual Property Rights” shall have the meaning ascribed to such term in Section 3.1(p).

“IT Systems and Data” shall have the meaning ascribed to such term in Section 3.1(jj).

“Liens” means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

“Lock-Up Agreements” means the Lock-Up Agreements, dated as of the date hereof, by and among the Company and each directors and executive officers of the Company, in substantially the form of Exhibit C attached hereto.

“Material Adverse Effect” shall have the meaning assigned to such term in Section 3.1(b).

“Material Permits” shall have the meaning ascribed to such term in Section 3.1(n).

“OFAC” shall have the meaning ascribed to such term in Section 3.1(kk).

“Per Share Purchase Price” equals \$[*], subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of shares of Common Stock that occur between the date hereof and the Closing Date.

“Per Pre-Funded Warrant Purchase Price” shall be the Per Share Purchase Price minus \$[*].

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Placement Agent” means A.G.P./Alliance Global Partners.

“Placement Agent Counsel” means Sullivan & Worcester LLP with offices located at 1633 Broadway, New York, New York 10019.

“Pre-Funded Warrants” means, collectively, the warrants delivered to the Purchasers at Closing in accordance with Section 2.2(a) hereof, which Pre-Funded Warrants shall be exercisable immediately upon issuance and shall expire in accordance with the terms thereof, in substantially the form of Exhibit B attached hereto.

“Preliminary Prospectus” means the preliminary prospectus included in the Registration Statement at the time the Registration Statement is declared effective.

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), pending or, to the Company’s knowledge, threatened in writing against the Company.

“Prospectus” means the final prospectus filed pursuant to the Registration Statement.

“Purchaser Party” shall have the meaning ascribed to such term in Section 4.8.

“Registration Statement” means the effective registration statement with the Commission on Form S-1 (File No. 333-274867), which registers the sale of the Securities and includes any Rule 462(b) Registration Statement.

“Required Approvals” shall have the meaning ascribed to such term in Section 3.1(e).

“Rule 144” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Rule 424” means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Rule 462(b) Registration Statement” means any registration statement prepared by the Company registering additional Securities, which was filed with the Commission on or prior to the date hereof and became automatically effective pursuant to Rule 462(b) promulgated by the Commission pursuant to the Securities Act.

“SEC Reports” shall have the meaning ascribed to such term in Section 3.1(h).

“Securities” means, collectively, the Shares, the Warrants, the Warrant Shares.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Shares” means the shares of Common Stock issued or issuable to each Purchaser pursuant to this Agreement.

“Short Sales” means all “short sales” as defined in Rule 200 of Regulation SHO under the Exchange Act (but shall not be deemed to include locating and/or borrowing shares of Common Stock).

“Subscription Amount” means, as to each Purchaser, the aggregate amount to be paid for the Shares and the Warrants purchased hereunder as specified below such Purchaser’s name on the signature page of this Agreement and next to the heading “Subscription Amount,” in United States dollars and in immediately available funds (minus, if applicable, a Purchaser’s aggregate exercise price of the Pre-Funded Warrants, which amounts shall be paid as and when such Pre-Funded Warrants are exercised for cash).

“Subsidiary” means any subsidiary of the Company as set forth in the SEC Reports and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

“Trading Day” means a day on which the principal Trading Market is open for trading.

“Trading Market” means any of the following markets or exchanges on which the shares of Common Stock are listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Agreement, the Warrants, the Lock-Up Agreements and all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“Transfer Agent” means Issuer Direct Corporation., the current transfer agent of the Company, and any successor transfer agent of the Company.

“Variable Rate Transaction” shall have the meaning ascribed to such term in Section 4.10(b).

“Warrants” means the Common Warrants and the Pre-Funded Warrants.

“Warrant Shares” means the shares of Common Stock issuable upon exercise of the Warrants.

ARTICLE II. PURCHASE AND SALE

2.1 Closing. On the Closing Date, upon the terms and subject to the conditions set forth herein, substantially concurrent with the execution and delivery of this Agreement by the parties hereto, the Company agrees to sell, and the Purchasers, severally and not jointly, agree to purchase, (i) the number of Shares set forth under the heading “Subscription Amount” on the Purchaser’s signature page hereto, at the Per Share Purchase Price, and (ii) Common Warrants exercisable for shares of Common Stock as calculated pursuant to Section 2.2(a); provided, however, that, to the extent that a Purchaser determines, in its sole discretion, that such Purchaser (together with such Purchaser’s Affiliates, and any Person acting as a group together with such Purchaser or any of such Purchaser’s Affiliates) would beneficially own in excess of the Beneficial Ownership Limitation, or as such Purchaser may otherwise choose, in lieu of purchasing Shares, such Purchaser may elect to purchase Pre-Funded Warrants in lieu of Shares in such manner to result in the full Subscription Amount being paid by such Purchaser to the Company. The “Beneficial Ownership Limitation” shall be 4.99% (or, at the election of the Purchaser prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock, in each case, outstanding immediately after giving effect to the issuance of the Securities on the Closing Date.

Each Purchaser’s Subscription Amount as set forth on the signature page hereto executed by such Purchaser shall be made available for Delivery Versus Payment (“DVP”) settlement with the Company or its designees. The Company shall deliver to each Purchaser its respective Shares and Warrants as determined pursuant to Section 2.2(a), and the Company and each Purchaser shall deliver the other items set forth in Section 2.2 at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.2 and 2.3, the Closing shall occur at the offices of the Placement Agent or such other location as the parties shall mutually agree. Unless otherwise directed by the Placement Agent, settlement of the Shares shall occur via DVP (i.e., on the Closing Date, the Company shall issue the Shares registered in the Purchasers’ names and addresses and released by the Transfer Agent directly to the account(s) at the Placement Agent identified by each Purchaser; upon receipt of such Shares, the Placement Agent shall promptly electronically deliver such Shares to the applicable Purchaser, and payment therefor shall be made by the Placement Agent (or its clearing firm) by wire transfer to the Company). Notwithstanding anything herein to the contrary, if at any time on or after the time of execution of this Agreement by the Company and an applicable Purchaser through the Closing (the “Pre-Settlement Period”), such Purchaser sells to any Person all, or any portion, of any Shares to be issued hereunder to such Purchaser at the Closing (collectively, the “Pre-Settlement Shares”), such Person shall, automatically hereunder (without any additional required actions by such Purchaser or the Company), be deemed to be a Purchaser under this Agreement unconditionally bound to purchase, and the Company shall be deemed unconditionally bound to sell, such Pre-Settlement Shares to such Person at the Closing; provided, that the Company shall not be required to deliver any Pre-Settlement Shares to such Purchaser prior to the Company’s receipt of the Subscription Amount for such Pre-Settlement Shares hereunder; provided, further, that the Company hereby acknowledges and agrees that the forgoing shall not constitute a representation or covenant by such Purchaser as to whether or not such Purchaser will elect to sell any Pre-Settlement Shares during the Pre-Settlement Period. The decision to sell any Shares will be made in the sole discretion of such Purchaser from time to time, including during the Pre-Settlement Period. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise (as defined in the Warrants) delivered on or prior to 12:00 p.m. (New York City time) on the Closing Date, which may be delivered at any time after the time of execution of this Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Closing Date and the Closing Date shall be the Warrant Share Delivery Date (as defined in the Warrants) for purposes hereunder.

2.2 Deliveries.

- (a) On or prior to the Closing Date, the Company shall deliver or cause to be delivered to each Purchaser the following:
 - (i) this Agreement duly executed by the Company;
 - (ii) the Company's wire instructions, on Company letterhead and executed by the Company's Chief Executive Officer or Chief Financial Officer;
 - (iii) subject to the sixth sentence in Section 2.1, a copy of the irrevocable instructions to the Transfer Agent instructing the Transfer Agent to deliver on an expedited basis via The Depository Trust Company Deposit or Withdrawal at Custodian system Shares equal to the portion of such Purchaser's Subscription Amount divided by the Per Share Purchase Price, registered in the name of such Purchaser;
 - (iv) for each Purchaser of Pre-Funded Warrants pursuant to Section 2.1, a Pre-Funded Warrant registered in the name of such Purchaser to purchase up to a number of shares of Common Stock equal to the portion of such Purchaser's Subscription Amount applicable to Pre-Funded Warrants divided by the sum of the Per Pre-Funded Warrant Purchase Price plus the exercise price per Warrant Share underlying such Pre-Funded Warrants, subject to adjustment therein;
 - (v) the Preliminary Prospectus and the Prospectus (which may be delivered in accordance with Rule 172 under the Securities Act);

- (vi) a Common Warrant registered in the name of such Purchaser to purchase up to a number of shares of Common Stock equal to 100% of such Purchaser's shares of Common Stock and Pre-Funded Warrants, as applicable, with an exercise price equal to \$[*] per share, subject to adjustment therein;
 - (vii) the duly executed Lock-Up Agreements;
 - (viii) a certificate executed by the Chief Executive Officer and Chief Financial Officer of the Company, dated as of the date of the Closing Date, in form and substance reasonably acceptable to the Purchasers and Placement Agent;
 - (ix) a certificate executed by the Secretary of the Company, dated as of the date of Closing, in form and substance reasonable acceptable to the Purchasers and Placement Agent;
 - (x) a legal opinion of Company Counsel and a favorable legal opinion of Nevada legal counsel of the Company, in form reasonably acceptable to the Placement Agent and the Purchasers; and
 - (xi) a legal opinion of the Company's intellectual property counsel, in form reasonably acceptable to the Placement Agent and the Purchasers.
- (b) On the Closing Date, the Placement Agent shall have received from the Auditor a cold comfort letter containing statements and information of the type customarily included in accountants' comfort letters with respect to the financial statements and certain financial information contained in the Registration Statement, the Preliminary Prospectus and the Prospectus, addressed to the Representative and in form and substance satisfactory in all respects to you and to the Auditor.
- (c) On or prior to the Closing Date, each Purchaser shall deliver or cause to be delivered to the Company, the following:
- (i) this Agreement duly executed by such Purchaser; and
 - (ii) such Purchaser's Subscription Amount with respect to the Securities purchased by such Purchaser, which shall be made available for DVP settlement with the Company or its designees.

2.3 Closing Conditions.

- (a) The obligations of the Company hereunder in connection with the Closing are subject to the following conditions being met:
 - (i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) when made and on the Closing Date of the representations and warranties of the Purchasers contained herein (unless as of a specific date therein in which case they shall be accurate in all material respects (or, to the extent representations or warranties are qualified by materiality, in all respects) as of such date);
 - (ii) all obligations, covenants and agreements of each Purchaser required to be performed at or prior to the Closing Date shall have been performed; and
 - (iii) the delivery by each Purchaser of the items set forth in Section 2.2(b) of this Agreement.
- (b) The respective obligations of the Purchasers hereunder in connection with the Closing are subject to the following conditions being met:
 - (i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) when made and on the Closing Date of the representations and warranties of the Company contained herein (unless as of a specific date therein in which case they shall be accurate in all material respects (or, to the extent representations or warranties are qualified by materiality, in all respects) as of such date);
 - (ii) all obligations, covenants and agreements of the Company required to be performed at or prior to the Closing Date shall have been performed;
 - (iii) the delivery by the Company of the items set forth in Section 2.2(a) of this Agreement;
 - (iv) there shall have been no Material Adverse Effect with respect to the Company since the date hereof; and
 - (v) from the date hereof to the Closing Date, trading in the Common Stock shall not have been suspended by the Commission or the Company's principal Trading Market, and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred after the date of this Agreement any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of such Purchaser, makes it impracticable or inadvisable to purchase the Securities at the Closing.

**ARTICLE III.
REPRESENTATIONS AND WARRANTIES**

3.1 Representations and Warranties of the Company. Except as set forth in the Disclosure Schedules, which Disclosure Schedules shall be deemed a part hereof and shall qualify any representation made herein to the extent of the disclosures contained in the corresponding section of the Disclosure Schedules, the Company hereby makes the following representations and warranties to each Purchaser:

- (a) Subsidiaries. All of the direct and indirect subsidiaries of the Company are set forth in the SEC Reports. The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary, free and clear of any Liens, except as set for in the SEC Reports and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. If the Company has no subsidiaries, all other references to the Subsidiaries or any of them in the Transaction Documents shall be disregarded.
- (b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing, and, if applicable under the laws of the jurisdiction in which they are formed, in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws, or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a "Material Adverse Effect") and, no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.
- (c) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents to which it is a party and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement and each other Transaction Document to which it is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

- (d) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's, certificate or articles of incorporation, bylaws, or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, anti-dilution or similar adjustments acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as would not have or reasonably be expected to result in a Material Adverse Effect.
- (e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filings required pursuant to Section 4.4 of this Agreement, (ii) the filing with the Commission of the Prospectus, (iii) the notice and/or application(s) to the principal Trading Market for the listing of the Shares and Warrant Shares for trading thereon in the time and manner required thereby, and (iv) filings required by the Financial Industry Regulatory Authority ("FINRA") (collectively, the "Required Approvals").

- (f) Issuance of the Securities; Registration. The Shares and Warrant Shares are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and non-assessable, free and clear of all Liens imposed by the Company. The Warrants are duly authorized and, when issued in accordance with this Agreement, will be duly and validly issued, fully paid and non-assessable, and free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Warrants. The Company has prepared and filed the Registration Statement in conformity with the requirements of the Securities Act, which Registration Statement became effective on [], 2023, including the Prospectus, and such amendments and supplements thereto as may have been required to the date of this Agreement. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or preventing the use of the Preliminary Prospectus or the Prospectus has been issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the rules and regulations of the Commission, shall file the Prospectus with the Commission pursuant to Rule 424(b). At the time the Registration Statement and any amendments thereto became effective as determined under the Securities Act, at the date of this Agreement and at the Closing Date, the Registration Statement and any amendments thereto conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Prospectus and any amendments or supplements thereto, at the time the Preliminary Prospectus, the Prospectus or any amendment or supplement thereto was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.
- (g) Capitalization. The capitalization of the Company as of the date hereof is as set forth on Schedule 3.1(g). The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee equity awards under the Company's equity incentive plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Securities and as set forth on Schedule 3.1(g), there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock or capital stock of any Subsidiary, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock, Common Stock Equivalents or capital stock of any Subsidiary. The issuance and sale of the Securities will not obligate the Company or any Subsidiary to issue shares of Common Stock or other securities to any Person (other than the Purchasers). There are no outstanding securities or instruments of the Company or any Subsidiary with any provision that adjusts the exercise, conversion, exchange or reset price of such security or instrument upon an issuance of securities by the Company or any Subsidiary. There are no outstanding securities or instruments of the Company or any Subsidiary that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to redeem a security of the Company or such Subsidiary. The Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and non-assessable, have been issued in compliance in all material respects with all federal and state securities laws where applicable, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

- (h) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the one (1) year preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such materials) (the foregoing information and materials, including the exhibits thereto, together with the Preliminary Prospectus and the Prospectus, being collectively referred to herein as the “SEC Reports”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in all material respects in accordance with GAAP, except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.
- (i) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any material liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and strategic acquisitions and (B) liabilities not required to be reflected in the Company’s financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any of its shares and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company equity incentive plans. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Securities contemplated by this Agreement, no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least one (1) Trading Day prior to the date that this representation is made.
- (j) Litigation. Except as set forth on in the SEC Reports, there is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”) that would reasonably be expected to result in a Material Adverse Effect. None of the Actions set forth in the SEC Reports: (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents, the Shares or the Warrant Shares; or (ii) would, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Except as set forth on Schedule 3.1(j), neither the Company nor any Subsidiary, nor any officer thereof, is the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

- (k) Labor Relations. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which would reasonably be expected to result in a Material Adverse Effect. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. To the knowledge of the Company, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters that would reasonably be expected to result in a Material Adverse Effect. The Company and its Subsidiaries are in compliance with all applicable U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.
- (l) Compliance. Neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case of (i), (ii) and (iii) as would not have or reasonably be expected to result in a Material Adverse Effect.
- (m) Environmental Laws. The Company and its Subsidiaries (i) are in compliance with all federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, "Hazardous Materials") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder ("Environmental Laws"); (ii) have received all permits licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses; and (iii) are in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect.

- (n) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such certificates, authorizations or permits would not reasonably be expected to result in a Material Adverse Effect ("Material Permits"), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit.
- (o) Title to Assets. The Company and the Subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for (i) Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and the Subsidiaries are in compliance, except where the failure to so comply would not reasonably be expected to result in a Material Adverse Effect.
- (p) Intellectual Property. The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to so have could have a Material Adverse Effect (collectively, the "Intellectual Property Rights"). Neither the Company nor any Subsidiary has received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within one (1) years from the date of this Agreement except for such expirations, terminations or abandonments which would not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as would not have or reasonably be expected to not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

- (q) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as the Company believes are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect.
- (r) Transactions with Affiliates and Employees. Except as set forth in the SEC Reports, none of the officers or directors of the Company or any Subsidiary and, to the knowledge of the Company, none of the employees of the Company or any Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of \$120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company or a Subsidiary and (iii) other employee benefits, including equity awards agreements under any equity incentive plan of the Company.
- (s) Sarbanes-Oxley: Internal Accounting Controls. The Company and the Subsidiaries are in material compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002, as amended, that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. Except as set forth on Schedule 3.1(s), the Company and the Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company and the Subsidiaries have established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and the Subsidiaries and designed such disclosure controls and procedures to provide reasonable assurance that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. The Company's certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company and the Subsidiaries as of the end of the period covered by the most recently filed Form 10-K under the Exchange Act (such date, the "Evaluation Date"). The Company presented in its most recently filed Form 10-K under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Except as set forth on Schedule 3.1(s), since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries.

- (t) Certain Fees. Except as set forth in the Preliminary Prospectus and Prospectus, no brokerage or finder's fees or commissions are or will be payable by the Company or any Subsidiary to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents (for the avoidance of doubt, the foregoing shall not include any fees and/or commissions owed to the Transfer Agent). Other than for Persons engaged by any Purchaser, if any, the Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by the Transaction Documents.
- (u) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Securities, will not be, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. While any Securities remain outstanding, other than with the consent of the Purchasers, the Company shall conduct its business in a manner so that it will not become an "investment company" subject to registration under the Investment Company Act of 1940, as amended.
- (v) Registration Rights. Except as set forth in the SEC Reports, no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

- (w) Listing and Maintenance Requirements. The shares of Common Stock are registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as set forth on Schedule 3.1(w), the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements. The Common Stock is currently eligible for electronic transfer through The Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to The Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.
- (x) Application of Takeover Protections. The Company and the Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's articles of incorporation or the laws of its state of incorporation that is or could become applicable to the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and the Purchasers' ownership of the Securities.
- (y) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Purchasers or their agents or counsel with any information that it believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the Preliminary Prospectus or the Prospectus. The Company understands and confirms that the Purchasers will rely on the foregoing representation in effecting transactions in securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Purchasers regarding the Company and its Subsidiaries, their respective businesses and the transactions contemplated hereby, including the Disclosure Schedules to this Agreement, is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve (12) months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and believes, to its best knowledge, that no Purchaser makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3.2 hereof.

- (z) No Integrated Offering. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of any applicable stockholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.
- (aa) Solvency. Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Securities hereunder, (i) the fair saleable value of the Company's assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company's assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. Schedule 3.1(aa) sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. For the purposes of this Agreement, "Indebtedness" means (x) any liabilities for borrowed money or amounts owed by the Company in excess of \$50,000 (other than trade accounts payable incurred in the ordinary course of business), (y) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others to third parties, whether or not the same are or should be reflected in the Company's consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (z) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

- (bb) Tax Compliance. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, or as set forth on Schedule 3.1(bb), the Company and its Subsidiaries each (i) has made or filed all federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges, fines or penalties that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its financial statements provision reasonably adequate for the payment of all material tax liability of which has not been finally determined and all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim.
- (cc) Foreign Corrupt Practices. Neither the Company nor any Subsidiary, nor to the knowledge of the Company or any Subsidiary, any agent or other person acting on behalf of the Company or any Subsidiary, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or any Subsidiary (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of FCPA.
- (dd) Accountants. The Company's independent registered public accounting firm is as set forth in the Preliminary Prospectus and Prospectus. To the knowledge and belief of the Company, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report for the fiscal year ended December 31, 2023.
- (ee) Acknowledgment Regarding Purchasers' Purchase of Securities. The Company acknowledges and agrees that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated thereby. The Company further acknowledges that no Purchaser is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated thereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated thereby is merely incidental to the Purchasers' purchase of the Securities. The Company further represents to each Purchaser that the Company's decision to enter into this Agreement and the other Transaction Documents has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

- (ff) Acknowledgment Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(f) and 4.12 hereof), it is understood and acknowledged by the Company that: (i) none of the Purchasers has been asked by the Company to agree, nor has any Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Shares for any specified term; (ii) past or future open market or other transactions by any Purchaser, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities; (iii) any Purchaser, and counter-parties in "derivative" transactions to which any such Purchaser is a party, directly or indirectly, presently may have a "short" position in the shares of Common Stock, and (iv) each Purchaser shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) one or more Purchasers may engage in hedging activities at various times during the period that the shares of Common Stock are outstanding, and (z) such hedging activities (if any) could reduce the value of the existing stockholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.
- (gg) Regulation M Compliance. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the shares of Common Stock, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the shares of Common Stock, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Company's placement agent in connection with the placement of the shares of Common Stock.
- (hh) [RESERVED]
- (ii) Equity Incentive Plans. Each equity award granted by the Company under the Company's equity incentive plan was granted (i) in accordance with the terms of the Company's equity incentive plan and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. No equity award was granted under the Company's equity incentive plan has been backdated. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, stock options prior to, or otherwise knowingly coordinate the grant of stock options with, the release or other public announcement of material information regarding the Company or its Subsidiaries or their financial results or prospects.

- (jj) Cybersecurity. Except as would not, individually or in the aggregate, have a Material Adverse Effect (i)(x) there has been no security breach or other compromise of or relating to any of the Company's or any Subsidiary's information technology and computer systems, networks, hardware, software, data (including the data of its respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of it), equipment or technology (collectively, "IT Systems and Data") and (y) the Company and the Subsidiaries have not been notified of, and has no knowledge of any event or condition that would reasonably be expected to result in, any security breach or other compromise to its IT Systems and Data; (ii) the Company and the Subsidiaries are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, individually or in the aggregate, have a Material Adverse Effect; (iii) the Company and the Subsidiaries have implemented and maintained commercially reasonable safeguards to maintain and protect its material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and Data; and (iv) the Company and the Subsidiaries have implemented backup and disaster recovery technology consistent with commercially reasonable industry standards and practices.
- (kk) Office of Foreign Assets Control. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC").
- (ii) U.S. Real Property Holding Corporation. The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon Purchaser's request.
- (mm) Bank Holding Company Act. Neither the Company nor any of its Subsidiaries or Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "BHCA") and to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Neither the Company nor any of its Subsidiaries or Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent (25%) or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its Subsidiaries or Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve.
- (nn) Money Laundering. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "Money Laundering Laws"), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Money Laundering Laws is pending or, to the knowledge of the Company or any Subsidiary, threatened.

3.2 Representations and Warranties of the Purchasers. Each Purchaser, for itself and for no other Purchaser, hereby represents and warrants as of the date hereof and as of the Closing Date to the Company as follows (unless as of a specific date therein, in which case they shall be accurate as of such date):

- (a) Organization; Authority. Such Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of the Transaction Documents and performance by such Purchaser of the transactions contemplated by the Transaction Documents have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.
- (b) Understandings or Arrangements. Such Purchaser is acquiring the Securities as principal for its own account and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Securities (this representation and warranty not limiting such Purchaser's right to sell the Securities pursuant to the Registration Statement or otherwise in compliance with applicable federal and state securities laws). Such Purchaser is acquiring the Securities hereunder in the ordinary course of its business.

- (c) Purchaser Status. At the time such Purchaser was offered the Securities, it was, and as of the date hereof it is, and on each date on which it exercises any Warrants, it will be either (i) an “accredited investor” as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7), (a)(8), (a)(9), (a)(12) or (a)(13) under the Securities Act, or (ii) a “qualified institutional buyer” as defined in Rule 144A(a) under the Securities Act.
- (d) Experience of Such Purchaser. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.
- (e) Access to Information. Such Purchaser acknowledges that it has had the opportunity to review the Transaction Documents (including all exhibits and schedules thereto) and the SEC Reports and has been afforded (i) the opportunity to ask such questions as it has deemed necessary of, and to receive answers from, representatives of the Company concerning the terms and conditions of the offering of the Securities and the merits and risks of investing in the Securities; (ii) access to information about the Company and its financial condition, results of operations, business, properties, management and prospects sufficient to enable it to evaluate its investment; and (iii) the opportunity to obtain such additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to make an informed investment decision with respect to the investment. Such Purchaser acknowledges and agrees that neither the Placement Agent nor any Affiliate of the Placement Agent has provided such Purchaser with any information or advice with respect to the Securities nor is such information or advice necessary or desired. Neither the Placement Agent nor any Affiliate has made or makes any representation as to the Company or the quality of the Securities and the Placement Agent and any Affiliate may have acquired non-public information with respect to the Company which such Purchaser agrees need not be provided to it. In connection with the issuance of the Securities to such Purchaser, neither the Placement Agent nor any of its Affiliates has acted as a financial advisor or fiduciary to such Purchaser.
- (f) Certain Transactions and Confidentiality. Other than consummating the transactions contemplated hereunder, such Purchaser has not, nor has any Person acting on behalf of or pursuant to any understanding with such Purchaser, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Purchaser first received a term sheet (written or oral) from the Company or any other Person representing the Company setting forth the material terms, which terms include definitive pricing terms, of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser’s assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser’s assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement or to such Purchaser’s representatives, including, without limitation, its officers, directors, partners, legal and other advisors, employees, agents and Affiliates, such Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

- (g) No Voting Agreements. The Purchaser is not a party to any agreement or arrangement, whether written or oral, between the Purchaser and any other Purchaser and any of the Company's stockholders as of the date hereof, regulating the management of the Company, the stockholders' rights in the Company, the transfer of shares in the Company, including any voting agreements, stockholder agreements or any other similar agreement even if its title is different or has any other relations or agreements with any of the Company's stockholders, directors or officers.
- (h) Brokers. Except as set forth on Schedule 3.2(h) or in the Preliminary Prospectus or Prospectus, no agent, broker, investment banker, person or firm acting in a similar capacity on behalf of or under the authority of the Purchaser is or will be entitled to any broker's or finder's fee or any other commission or similar fee, directly or indirectly, for which the Company or any of its Affiliates after the Closing could have any liabilities in connection with this Agreement, any of the transactions contemplated by this Agreement, or on account of any action taken by the Purchaser in connection with the transactions contemplated by this Agreement.
- (i) Independent Advice. Each Purchaser understands that nothing in this Agreement or any other materials presented by or on behalf of the Company to the Purchaser in connection with the purchase of the Securities constitutes legal, tax or investment advice.

The Company acknowledges and agrees that the representations contained in this Section 3.2 shall not modify, amend or affect such Purchaser's right to rely on the Company's representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transactions contemplated hereby. Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, except as set forth in this Agreement, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

**ARTICLE IV.
OTHER AGREEMENTS OF THE PARTIES**

4.1 Legends. The shares of Common Stock and, if all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the issuance or resale of the Warrant Shares or if the Warrant is exercised via cashless exercise, the Warrant Shares shall be issued free of legends. If at any time following the date hereof the Registration Statement is not effective or is not otherwise available for the issuance of the shares of Common Stock, the Warrants or the Warrant Shares, the Company shall promptly notify the holders of the Warrants in writing that such registration statement is not then effective and thereafter shall promptly notify such holders when the registration statement is effective again and available for the sale of the Shares, the Warrants or the Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any Purchaser to sell, any of the Shares, the Warrants or the Warrant Shares in compliance with applicable federal and state securities laws). The Company shall use commercially reasonable efforts to keep a registration statement (including the Registration Statement) registering the issuance of the Warrant Shares effective during the term of the Warrants.

4.2 Furnishing of Information; Public Information. Until the earlier of the time that (i) no Purchaser owns Securities, or (ii) the Common Warrants have expired, the Company covenants to use commercially reasonable effort to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act.

4.3 Integration. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market such that it would require stockholder approval prior to the closing of such other transaction unless stockholder approval is obtained before the closing of such subsequent transaction.

4.4 Securities Laws Disclosure; Publicity. The Company shall (a) by the Disclosure Time, issue a press release disclosing the material terms of the transactions contemplated hereby, and (b) file a Current Report on Form 8-K, including the Transaction Documents required to be filed as exhibits thereto, with the Commission within the time required by the Exchange Act (the "Form 8-K"). From and after the issuance of such press release, the Company represents to the Purchasers that it shall have publicly disclosed all material, non-public information delivered to any of the Purchasers by the Company or any of its Subsidiaries or Affiliates, or any of their respective officers, directors, employees or agents, including, without limitation, the Placement Agent, in connection with the transactions contemplated by the Transaction Documents. In addition, effective upon the issuance of such press release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates, including, without limitation, the Placement Agent, on the one hand, and any of the Purchasers or any of their Affiliates on the other hand, shall terminate and be of no further force or effect. The Company and each Purchaser shall consult with each other in issuing any other press releases with respect to the transactions contemplated hereby, and neither the Company nor any Purchaser shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release of the Company (other than the press release described in the first sentence of this Section 4.4), which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication, or if such disclosure is consistent with the Form 8-K. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (a) as required by federal securities law in connection with the filing of final Transaction Documents with the Commission, and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under this clause (b).

4.5 Stockholder Rights Plan. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Purchaser is an “Acquiring Person” under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities under the Transaction Documents or under any other agreement between the Company and the Purchasers.

4.6 Non-Public Information. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, which shall be disclosed pursuant to Section 4.4, the Company covenants and agrees that neither it, nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that the Company believes constitutes material non-public information, unless prior thereto such Purchaser shall have entered into a written agreement with the Company regarding the confidentiality and use of such information. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company. To the extent that the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates delivers any material, non-public information to a Purchaser without such Purchaser’s consent, the Company hereby covenants and agrees that such Purchaser shall not have any duty of confidentiality to the Company, any of its Subsidiaries, or any of their respective officers, directors, agents, employees or Affiliates, or a duty to the Company, and of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates not to trade on the basis of, such material, non-public information, provided that the Purchaser shall remain subject to applicable law. To the extent that any notice provided pursuant to any Transaction Document constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

4.7 Use of Proceeds. The Company shall use the net proceeds from the sale of the Securities hereunder as described in the “Use of Proceeds” section of the Registration Statement and Prospectus and shall not be used in violation of FCPA or OFAC regulations or similar applicable regulations.

4.8 Indemnification of Purchasers. Subject to the provisions of this Section 4.8, the Company will indemnify and hold each Purchaser and its directors, officers, shareholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each Person who controls such Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, shareholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling persons (each, a “Purchaser Party”) harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys’ fees and costs of investigation that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against the Purchaser Parties in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser Party, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a material breach of such Purchaser Party’s representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser Party may have with any such stockholder or any violations by such Purchaser Party of state or federal securities laws or any conduct by such Purchaser Party which is finally judicially determined to constitute fraud, gross negligence or willful misconduct). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Purchaser Party. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of counsel, a material conflict on any material issue between the position of the Company and the position of such Purchaser Party, in which case the Company shall be responsible for the reasonable and documented fees and expenses of no more than one such separate counsel. The Company will not be liable to any Purchaser Party under this Agreement (y) for any settlement by a Purchaser Party effected without the Company’s prior written consent, which shall not be unreasonably withheld or delayed; or (z) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party’s breach of any of the representations, warranties, covenants or agreements made by such Purchaser Party in this Agreement or in the other Transaction Documents. The indemnification required by this Section 4.8 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred; provided, however, that if it is subsequently determined by a final, non-appealable judgment of a court of competent jurisdiction that a Purchaser was not entitled to receive such periodic payments, such Purchaser shall promptly (but in no event later than five (5) Business Days) return such payments to the Company. The indemnity agreements contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against the Company or others and any liabilities the Company may be subject to pursuant to law.

4.9 Listing of Common Stock. The Company hereby agrees to use reasonable best efforts to maintain the listing or quotation of the shares of Common Stock on the principal Trading Market on which it is currently listed, and concurrently with the Closing, the Company shall apply to list or quote all of the Shares and Warrant Shares on such Trading Market and promptly secure the listing of all of the Shares and Warrant Shares on such Trading Market. The Company further agrees, if the Company applies to have the Common Stock traded on any other Trading Market, it will then include in such application all of the Shares and Warrant Shares, and will take such other action as is necessary to cause all of the Shares and Warrant Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing and trading of the Common Stock on a Trading Market and will comply in all material respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market. The Company agrees to use reasonable efforts to maintain the eligibility of the Common Stock for electronic transfer through the Depository Trust Company or another established clearing corporation, including, without limitation, by timely payment of fees to the Depository Trust Company or such other established clearing corporation in connection with such electronic transfer.

4.10 Subsequent Equity Sales.

- (a) From the date hereof until ninety (90) days after the Closing Date, neither the Company nor any Subsidiary shall (i) issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents or (ii) file any registration statement or amendment or supplement thereto, other than the Prospectus or filing a registration statement on Form S-8 in connection with any employee benefit plan.
- (b) From the date hereof until the six (6) months anniversary of the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of shares of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the Common Stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for shares of Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an "at-the-market offering", whereby the Company may issue securities at a future determined price regardless of whether shares pursuant to such agreement have actually been issued and regardless of whether such agreement is subsequently cancelled. Any Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.
- (c) Notwithstanding the foregoing, this Section 4.10 shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance.

4.11 Equal Treatment of Purchasers. No consideration (including any modification of this Agreement) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration is also offered to all of the parties to this Agreement. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended for the Company to treat the Purchasers as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of the shares of Common Stock or otherwise.

4.12 Certain Transactions and Confidentiality. Each Purchaser, severally and not jointly with the other Purchasers, covenants that neither it nor any Affiliate acting on its behalf or pursuant to any understanding with it will execute any purchases or sales, including Short Sales of any of the Company's securities during the period commencing with the execution of this Agreement and ending at such time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company pursuant to the initial press release as described in Section 4.4, such Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in the Disclosure Schedules (other than as disclosed to its legal and other representatives). Notwithstanding the foregoing, and notwithstanding anything contained in this Agreement to the contrary, the Company expressly acknowledges and agrees that (i) no Purchaser makes any representation, warranty or covenant hereby that it will not engage in effecting transactions in any securities of the Company after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4, (ii) no Purchaser shall be restricted or prohibited from effecting any transactions in any securities of the Company in accordance with applicable securities laws from and after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4 and (iii) no Purchaser shall have any duty of confidentiality or duty not to trade in the securities of the Company to the Company or its Subsidiaries after the issuance of the initial press release as described in Section 4.4. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the covenant set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement.

4.13 Exercise Procedures. The form of Notice of Exercise included in the Warrants set forth the totality of the procedures required of the Purchasers in order to exercise the Warrants. No additional legal opinion, other information or instructions shall be required of the Purchasers to exercise their Warrants. Without limiting the preceding sentences, no ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required in order to exercise the Warrants. The Company shall honor exercises of the Warrants and shall deliver Warrant Shares in accordance with the terms, conditions and time periods set forth in the Transaction Documents.

4.14 Reservations of Shares. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue shares of Common Stock pursuant to this Agreement and Warrant Shares pursuant to any exercise of the Warrants.

4.15 Lock-Up Agreements. The Company shall not amend, modify, waive or terminate any provision of any of the Lock-Up Agreements, except to extend the term of the lock-up period, and shall enforce the provisions of each Lock-Up Agreement in accordance with its terms. If any party to a Lock-Up Agreement breaches any provision of a Lock-Up Agreement, the Company shall promptly use its reasonable best efforts to seek specific performance of the terms of such Lock-Up Agreement.

**ARTICLE V.
MISCELLANEOUS**

5.1 Termination. This Agreement may be terminated by (i) any Purchaser, as to such Purchaser's obligations hereunder only and without any effect whatsoever on the obligations between the Company and the other Purchasers, by written notice to the other parties or (ii) by the Company by written notice to the Purchaser, in either case, if the Closing has not been consummated on or before the fifth (5th) Trading Day following the date hereof; provided, however, that no such termination will affect the right of any party to sue for any breach by any other party (or parties).

5.2 Fees and Expenses. Except as expressly set forth in the Transaction Documents to the contrary, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all Transfer Agent fees (including, without limitation, any fees required for same-day processing of any instruction letter delivered by the Company and any exercise notice delivered by a Purchaser), stamp taxes and other taxes and duties levied in connection with the delivery of any Securities to the Purchasers.

5.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, the Preliminary Prospectus and the Prospectus, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.4 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or email attachment at the email address as set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or email attachment at the email address as set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2nd) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto. To the extent that any notice provided pursuant to any Transaction Document constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall file such notice with the Commission pursuant to a Current Report on Form 8-K.

5.5 Amendments; Waivers. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and the Purchasers who purchased at least 50.1% in interest of the sum of (i) the Shares and (ii) the Pre-Funded Warrant Shares initially issuable upon exercise of the Pre-Funded Warrants based on the initial Subscription Amounts hereunder (or, prior to the Closing, the Company and each Purchaser), or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought; provided, that if any amendment, modification or waiver disproportionately and adversely impacts a Purchaser (or multiple Purchasers), the consent of such disproportionately impacted Purchaser (or 50.1% in interest of such Purchasers) shall also be required. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof except to the extent expressly stated in such waiver, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any proposed amendment or waiver that disproportionately, materially and adversely affects the rights and obligations of any Purchaser relative to the comparable rights and obligations of the other Purchasers shall require the prior written consent of such adversely affected Purchaser. Any amendment effected in accordance with this Section 5.5 shall be binding upon each Purchaser and holder of Securities and the Company.

5.6 Headings. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

5.7 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser (other than by merger). Any Purchaser may assign any or all of its rights under this Agreement to any Person to whom such Purchaser assigns or transfers any Securities, provided that such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions of the Transaction Documents that apply to the "Purchasers."

5.8 No Third-Party Beneficiaries. The Placement Agent shall be the third-party beneficiary of the representations and warranties of the Company in Section 3.1 and the representations and warranties of the Purchasers in Section 3.2. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 4.8 and this Section 5.8.

5.9 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal Proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, stockholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such Action or Proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such Action or Proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an Action or Proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Section 4.8, the prevailing party in such Action or Proceeding shall be reimbursed by the other party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such Action or Proceeding.

5.10 Survival. The representations and warranties contained herein shall survive the Closing and the delivery of the Securities for the applicable statute of limitations.

5.11 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page was an original thereof.

5.12 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

5.13 Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) any of the other Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights; provided, however, that, in the case of a rescission of an exercise of a Warrant, the applicable Purchaser shall be required to return any shares of Common Stock subject to any such rescinded exercise notice concurrently with the return to such Purchaser of the aggregate exercise price paid to the Company for such shares and the restoration of such Purchaser's right to acquire such shares pursuant to such Purchaser's Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

5.14 Replacement of Securities. If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof (in the case of mutilation), or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction. The applicant for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs (including customary indemnity) associated with the issuance of such replacement Securities.

5.15 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any Action for specific performance of any such obligation the defense that a remedy at law would be adequate.

5.16 Payment Set Aside. To the extent that the Company makes a payment or payments to any Purchaser pursuant to any Transaction Document or a Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other Person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.17 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance or non-performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Purchaser pursuant hereto or thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Purchaser shall be entitled to independently protect and enforce its rights including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any Proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. For reasons of administrative convenience only, each Purchaser and its respective counsel have chosen to communicate with the Company through Placement Agent Counsel, the legal counsel of the Placement Agent. Placement Agent Counsel does not represent any of the Purchasers and only represents the Placement Agent. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by any of the Purchasers. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company and a Purchaser, solely, and not between the Company and the Purchasers collectively and not between and among the Purchasers. Notwithstanding anything to the contrary in the foregoing, each of the Purchasers has been advised, and is being advised by this Agreement, to consult with an attorney before executing this Agreement, and each Purchase has consulted (or had an opportunity to consult) with counsel of such Purchaser's choice concerning the terms and conditions of this Agreement and the other Transaction Documents for a reasonable period of time prior to the execution hereof and thereof.

5.18 Liquidated Damages. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled.

5.19 Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

5.20 Construction. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

5.21 WAIVER OF JURY TRIAL. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVES FOREVER TRIAL BY JURY.

(Signature Pages Follow)

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

ZIVO BIOSCIENCE, INC.

Address for Notice:

21 East Long Lake Road, Suite 100
Bloomfield Hills, Michigan 48304
Attention: Keith R. Marchiando

By: _____
Name:
Title:

Email: kmarchiando@zivobioscience.com

With a copy to (which shall not constitute notice):

Honigman LLP
2290 First National Building
600 Woodward Avenue
Detroit, MI 48226-3506
Attention: Jeffrey Kuras, Esq., Emily J. Johns, Esq.

Email: JKuras@honigman.com ;
EJohns@honigman.com

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOR PURCHASER FOLLOWS]

[PURCHASER SIGNATURE PAGES TO SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: _____
Signature of Authorized Signatory of Purchaser: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Email Address of Authorized Signatory: _____
Facsimile Number of Authorized Signatory: _____
Address for Notice to Purchaser: _____
Address for Delivery of Warrant Shares to the Purchaser (if not same address for notice): _____
DWAC for Common Stock: _____
Subscription Amount: \$ _____
Shares of Common Stock: _____
Shares of Common Stock underlying the Pre-Funded Warrants: _____
Beneficial Ownership Blocker 4.99% or 9.99%
Warrant Shares underlying the Common Warrants: _____
Beneficial Ownership Blocker 4.99% or 9.99%
EIN Number: _____

Notwithstanding anything contained in this Agreement to the contrary, by checking this box (i) the obligations of the above-signed to purchase the securities set forth in this Agreement to be purchased from the Company by the above-signed, and the obligations of the Company to sell such securities to the above-signed, shall be unconditional and all conditions to Closing shall be disregarded, (ii) the Closing shall occur on the second (2nd) Trading Day following the date of this Agreement and (iii) any condition to Closing contemplated by this Agreement (but prior to being disregarded by clause (i) above) that required delivery by the Company or the above-signed of any agreement, instrument, certificate or the like or purchase price (as applicable) shall no longer be a condition and shall instead be an unconditional obligation of the Company or the above-signed (as applicable) to deliver such agreement, instrument, certificate or the like or purchase price (as applicable) to such other party on the Closing Date.

[SIGNATURE PAGES CONTINUE]

Exhibit A

Form of Common Warrant

(See Attached)

Exhibit B

Form of Pre-Funded Warrant

(See Attached)

Exhibit C

Form of Lock-Up Agreement

(See Attached)

LOCK-UP AGREEMENT

[*], 2023

Zivo Bioscience, Inc.
21 E. Long Lake Road, Suite 100
Bloomfield Hills, MI 48304

Re: Securities Purchase Agreement, dated as of [*], 2023 (the "Purchase Agreement"), between Zivo Bioscience, Inc. (the "Company") and the purchasers signatory thereto

Ladies and Gentlemen:

Defined terms not otherwise defined in this letter agreement (the "Letter Agreement") shall have the meanings set forth in the Purchase Agreement. Pursuant to Section 2.2(a) of the Purchase Agreement and in satisfaction of a condition of the Company's obligations under the Purchase Agreement, the undersigned irrevocably agrees with the Company that, from the date hereof until 90 days following the Closing Date (such period, the "Restriction Period"), the undersigned will not offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by the undersigned or any Affiliate of the undersigned or any person in privity with the undersigned or any Affiliate of the undersigned), directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), with respect to, any shares of Common Stock of the Company or securities convertible, exchangeable or exercisable into, shares of Common Stock of the Company beneficially owned, held or hereafter acquired by the undersigned (the "Securities"). Beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act.

Notwithstanding the foregoing, the undersigned may transfer any of the undersigned's Securities as set forth in paragraphs (i) through (xi) below provided that (1) in the case of paragraphs (i) through (vii), the Company receives a signed lock-up letter agreement in the form of this Letter Agreement for the balance of the Restriction Period from each donee, trustee, distributee or transferee, as the case may be, prior to such transfer, (2) in the case of paragraphs (i), (iii) and (iv), any such transfer shall not involve a disposition for value, (3) in the case of paragraphs (i) through (v) and paragraph and (xi), such transfer is not required to be reported with the Securities and Exchange Commission (the "Commission") in accordance with the Exchange Act, and (4) in the case of paragraphs (i) through (xi), neither the undersigned nor any donee, trustee, distributee or transferee, as the case may be, voluntarily effects any public filing or report regarding such transfer:

- i) as a *bona fide* gift or gifts;
-

- ii) to any immediate family member or to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this Letter Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin);
- iii) to any corporation, partnership, limited liability company, or other business entity all of the equity holders of which consist of the undersigned and/or the immediate family of the undersigned;
- iv) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (a) to another corporation, partnership, limited liability company, trust or other business entity that is an Affiliate of the undersigned or (b) in the form of a distribution to limited partners, limited liability company members or stockholders of the undersigned;
- v) if the undersigned is a trust, to the beneficiary of such trust; or
- vi) by trust, will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned.
- vii) to a spouse, former spouse, child or other dependent pursuant to a domestic relations order or pursuant to a settlement agreement in connection with a domestic relations matter; provided that, other than with respect to such a transfer done pursuant to a court order, the assignee or transferee thereof agrees to be bound in writing by the restrictions set forth herein;
- viii) through the disposition or forfeiture of the undersigned's shares to the Company to satisfy any income, employment or tax withholding and remittance obligations of the undersigned or the employer of the undersigned in connection with the vesting of restricted stock, restricted stock units or other incentive awards settled in shares of Common Stock held by the undersigned; provided that, if required, any public filing, report or announcement, including under Section 16 of the Exchange Act, shall clearly indicate in the footnotes thereto that the filing relates to the transfer of shares through the disposition or forfeiture of the undersigned's shares to the Company to satisfy any income, employment or tax withholding and remittance obligations of the undersigned or the employer of the undersigned in connection with the vesting of restricted stock, restricted stock units or other incentive awards settled in shares held by the undersigned;
- ix) pursuant to a plan, contract or instruction that satisfies all of the requirements of Rule 10b5-1 of the Exchange Act and that was in effect prior to the date hereof; provided that, if required, any public filing, report or announcement, including under Section 16 of the Exchange Act, shall clearly indicate in the footnotes thereto that the transfers were made pursuant to a plan meeting the requirements of Rule 10b5-1;

- x) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of the Company's Securities involving a change of control of the Company; provided that in the event that such tender offer, merger, consolidation or other such transaction is not completed, the Securities held by the undersigned shall remain subject to the provisions of this Letter Agreement; and
- xi) if the Securities were purchased in open market transactions after the Closing Date.

In addition, notwithstanding the foregoing, this Letter Agreement shall not restrict the delivery of shares of Common Stock to the undersigned upon (i) the vesting or exercise of any equity incentive awards granted under any employee benefit plan of the Company; provided that any shares of Common Stock or Securities acquired in connection with any such vesting or exercise will be subject to the restrictions set forth in this Letter Agreement, or (ii) the exercise of warrants; provided that such shares of Common Stock delivered to the undersigned in connection with such exercise are subject to the restrictions set forth in this Letter Agreement.

Furthermore, the undersigned may enter into any new plan established in compliance with Rule 10b5-1 of the Exchange Act; provided that (i) such plan may only be established if no public announcement or filing with the Commission, or other applicable regulatory authority, is made in connection with the establishment of such plan during the Restriction Period and (ii) no sale of shares of Common Stock are made pursuant to such plan during the Restriction Period.

The undersigned acknowledges that the execution, delivery and performance of this Letter Agreement is a material inducement to the Company to complete the transactions contemplated by the Purchase Agreement and the Company shall be entitled to specific performance of the undersigned's obligations hereunder. The undersigned hereby represents that the undersigned has the power and authority to execute, deliver and perform this Letter Agreement, that the undersigned has received adequate consideration therefor and that the undersigned will indirectly benefit from the closing of the transactions contemplated by the Purchase Agreement.

This Letter Agreement may not be amended or otherwise modified in any respect without the written consent of each of the Company and the undersigned. This Letter Agreement shall be construed and enforced in accordance with the laws of the State of New York without regard to the principles of conflict of laws. The undersigned hereby irrevocably submits to the exclusive jurisdiction of the United States District Court sitting in the Southern District of New York and the courts of the State of New York located in Manhattan, for the purposes of any suit, action or proceeding arising out of or relating to this Letter Agreement, and hereby waives, and agrees not to assert in any such suit, action or proceeding, any claim that (i) it is not personally subject to the jurisdiction of such court, (ii) the suit, action or proceeding is brought in an inconvenient forum, or (iii) the venue of the suit, action or proceeding is improper. The undersigned hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by receiving a copy thereof sent to the Company at the address in effect for notices to it under the Purchase Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. The undersigned hereby waives any right to a trial by jury. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law.

This Letter Agreement shall automatically terminate if the Purchase Agreement is terminated in accordance with its terms prior to the consummation of the transactions contemplated thereby.

This Letter Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provisions hereof be enforced by, any other person

This Letter Agreement shall be binding on successors and assigns of the undersigned with respect to the Securities and any such successor or assign shall enter into a similar agreement for the benefit of the Company. This Lock-Up Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provisions hereof be enforced by, any other person.

*** SIGNATURE PAGE FOLLOWS***

This Letter Agreement may be executed in two or more counterparts, all of which when taken together may be considered one and the same agreement.

Signature

Print Name

Position in Company, if any

Address for Notice:

Number of shares of Common Stock

Number of shares of Common Stock underlying subject to warrants, options, debentures or other convertible securities

By signing below, the Company agrees to enforce the restrictions on transfer set forth in this Letter Agreement.

ZIVO BIOSCIENCE, INC.

By: _____
Name:
Title:

A.G.P./Alliance Global Partners
590 Madison Avenue, 28th Floor
New York, NY 10022

[*], 2023

Zivo Bioscience, Inc.
21 E. Long Lake Road, Suite 100
Bloomfield Hills, MI 48304
Attention: John B. Payne

Re: Placement Agency Agreement

Dear Mr. Payne:

Subject to the terms and conditions of this letter agreement (the “**Agreement**”) between A.G.P./Alliance Global Partners, as the sole placement agent (“**A.G.P.**”) (A.G.P. is also referred to herein as the “**Placement Agent**”), and Zivo Bioscience, Inc., a Nevada corporation (the “**Company**”), the parties hereby agree that the Placement Agent shall serve as the placement agent for the Company, on a “reasonable best efforts” basis, in connection with the proposed placement (the “**Placement**”) of registered securities of the Company, consisting of: (i) shares of common stock, par value \$0.001 per share (“**Common Stock**”), (ii) pre-funded warrants to purchase Common Stock (the “**Pre-Funded Warrants**”), and (iii) warrants to purchase Common Stock (the “**Common Warrants**” and collectively with the Pre-Funded Warrants, the “**Warrants**”). The Common Stock and Warrants actually placed by the Placement Agent are referred to herein as the “**Placement Agent Securities**.” The Placement Agent Securities and shares of Common Stock issuable upon the exercise of the Warrants shall be offered and sold under the Company’s registration statement on Form S-1 (File No. 333-[*]), which was declared effective by the Securities and Exchange Commission (the “**Commission**”) on [*], 2023. The documents executed and delivered by the Company and the Purchasers (as defined below) in connection with the Placement, including, without limitation, a securities purchase agreement (the “**Purchase Agreement**”), shall be collectively referred to herein as the “**Transaction Documents**.” The terms of the Placement shall be mutually agreed upon by the Company and the purchasers listed in the Purchase Agreement (each, a “**Purchaser**” and collectively, the “**Purchasers**”), and nothing herein constitutes that the Placement Agent would have the power or authority to bind the Company or any Purchaser, or an obligation for the Company to issue any Placement Agent Securities or complete the Placement. The Company expressly acknowledges and agrees that the Placement Agent’s obligations hereunder are on a reasonable best efforts basis only and that the execution of this Agreement does not constitute a commitment by the Placement Agent to purchase the Placement Agent Securities and does not ensure the successful placement of the Placement Agent Securities or any portion thereof or the success of the Placement Agent with respect to securing any other financing on behalf of the Company. The Placement Agent may retain other brokers or dealers to act as sub-agents or selected-dealers on its behalf in connection with the Placement. Certain affiliates of the Placement Agent may participate in the Placement by purchasing some of the Placement Agent Securities. The sale of Placement Agent Securities to any Purchaser will be evidenced by the Purchase Agreement between the Company and such Purchaser, in a form reasonably acceptable to the Company and the Purchaser. Capitalized terms that are not otherwise defined herein have the meanings given to such terms in the Purchase Agreement. Prior to the signing of any Purchase Agreement, officers of the Company will be available to answer inquiries from prospective Purchasers.

SECTION 1. REPRESENTATIONS AND WARRANTIES OF THE COMPANY; COVENANTS OF THE COMPANY.

- A. Representations of the Company. With respect to the Placement Agent Securities, each of the representations and warranties (together with any related disclosure schedules thereto) and covenants made by the Company to the Purchasers in the Purchase Agreement in connection with the Placement, is hereby incorporated herein by reference into this Agreement (as though fully restated herein) and is, as of the date of this Agreement and as of the Closing Date, hereby made to, and in favor of, the Placement Agent. In addition to the foregoing, the Company represents and warrants that there are no affiliations with any Financial Industry Regulatory Authority (“**FINRA**”) member firm participating in the Placement among the Company’s officers, directors or, to the knowledge of the Company, any five percent (5.0%) or greater stockholder of the Company, except as set forth in the Purchase Agreement.
- B. Covenants of the Company. The Company covenants and agrees that except for an Exempt Issuance (as defined in the Purchase Agreement) from the date hereof until 90 days after the Closing Date, neither the Company nor any Subsidiary shall (i) issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents or (ii) file any registration statement or amendment or supplement thereto, other than the Prospectus Supplement and a registration statement on Form S-8 in connection with any equity incentive plan.

In addition, the Company covenants and agrees that from the date hereof until six (6) months after the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction, except that such restriction shall not apply with respect to an Exempt Issuance.

SECTION 2. REPRESENTATIONS OF THE PLACEMENT AGENT. The Placement Agent represents and warrants that it (i) is a member in good standing of FINRA, (ii) is registered as a broker/dealer under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), (iii) is licensed as a broker/dealer under the laws of the United States of America, applicable to the offers and sales of the Placement Agent Securities by the Placement Agent, (iv) is and will be a corporate body validly existing under the laws of its place of incorporation, and (v) has full power and authority to enter into and perform its obligations under this Agreement. The Placement Agent will immediately notify the Company in writing of any change in its status with respect to subsections (i) through (v) above. The Placement Agent covenants that it will use its reasonable best efforts to conduct the Placement hereunder in compliance with the provisions of this Agreement and the requirements of applicable law.

SECTION 3. COMPENSATION. In consideration of the services to be provided for hereunder, the Company shall pay to the Placement Agent and/or its respective designees total cash fee equal to seven percent (7.0%) of the aggregate gross proceeds raised from the Placement of the total amount of Placement Agent Securities sold. The Placement Agent reserves the right to reduce any item of compensation, including the reimbursement of expenses described in Section 4 below, or adjust the terms thereof as specified herein in the event that a determination shall be made by FINRA to the effect that the Placement Agent’s aggregate compensation is in excess of FINRA Rules or that the terms thereof require adjustment.

SECTION 4. EXPENSES. The Company agrees to pay all costs, fees and expenses incurred by the Company in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including, without limitation: (i) all expenses incident to the issuance, delivery and qualification of the Placement Agent Securities (including all printing and engraving costs); (ii) all fees and expenses of the transfer agent; (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Placement Agent Securities; (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors in connection with the transaction; (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Preliminary Prospectus and the Prospectus, and all amendments and supplements thereto, and this Agreement; (vi) all filing fees, reasonable attorneys' fees and expenses incurred by the Company in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Placement Agent Securities for offer and sale under the state securities or blue sky laws or the securities laws of any other country; (vii) the fees and expenses associated with including the Placement Agent Securities on the Trading Market; (viii) up to \$75,000 for accountable expenses related to legal fees of counsel to the Placement Agent; (ix) up to \$10,000 for costs associated with any escrow arrangements; and (x) reasonable non-accountable expenses, including IPREO software related expenses, background check expenses, tombstones and marketing related expenses, including road show expenses, and any other non-accountable expenses incurred by the Placement Agent in connection with the Placement, provided, however, that such reimbursement for non-accountable expenses shall not exceed \$20,000.

SECTION 5. INDEMNIFICATION.

- A. To the extent permitted by law, with respect to the Placement Agent Securities, the Company will indemnify the Placement Agent and its affiliates, stockholders, directors, officers, employees, members and controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) against all losses, claims, damages, expenses and liabilities, as the same are incurred (including the reasonable fees and expenses of counsel), relating to or arising out of its activities hereunder or pursuant to this Agreement, except to the extent that any losses, claims, damages, expenses or liabilities (or actions in respect thereof) are found in a final judgment (not subject to appeal) by a court of law to have resulted primarily from the Placement Agent's bad faith, willful misconduct or gross negligence in performing the services described herein.
- B. Promptly after receipt by the Placement Agent of notice of any claim or the commencement of any action or proceeding with respect to which the Placement Agent is entitled to indemnity hereunder, the Placement Agent will notify the Company in writing of such claim or of the commencement of such action or proceeding, but failure to so notify the Company shall not relieve the Company from any obligation it may have hereunder, except and only to the extent such failure results in the forfeiture by the Company of substantial rights and defenses. If the Company so elects or is requested by the Placement Agent, the Company will assume the defense of such action or proceeding and will employ counsel reasonably satisfactory to the Placement Agent and will pay the reasonable fees and expenses of such counsel. Notwithstanding the preceding sentence, the Placement Agent will be entitled to employ its own counsel separate from counsel for the Company and from any other party in such action if counsel for the Placement Agent reasonably determines that it would be inappropriate under the applicable rules of professional responsibility for the same counsel to represent both the Company and the Placement Agent. In such event, the reasonable fees and disbursements of no more than one such separate counsel will be paid by the Company, in addition to reasonable fees of local counsel. The Company will have the right to settle the claim or proceeding provided that the Company will not settle any such claim, action or proceeding without the prior written consent of the Placement Agent, which will not be unreasonably withheld. The Company shall not be liable for any settlement of any action effected without its written consent, which will not be unreasonably withheld.

- C. The Company agrees to notify the Placement Agent promptly of the assertion against it or any other person of any claim or the commencement of any action or proceeding relating to a transaction contemplated by this Agreement.
- D. The Company agrees to notify the Placement Agent promptly of the assertion against it or any other person of any claim or the commencement of any action or proceeding relating to a transaction contemplated by this Agreement.
- E. If for any reason the foregoing indemnity is unavailable to the Placement Agent or insufficient to hold the Placement Agent harmless (other than due to the express provisions thereof), then the Company shall contribute to the amount paid or payable by the Placement Agent as a result of such losses, claims, damages or liabilities in such proportion as is appropriate to reflect not only the relative benefits received by the Company on the one hand and the Placement Agent on the other, but also the relative fault of the Company on the one hand and the Placement Agent on the other that resulted in such losses, claims, damages or liabilities, as well as any relevant equitable considerations. The amounts paid or payable by a party in respect of losses, claims, damages and liabilities referred to above shall be deemed to include any legal or other fees and expenses incurred in defending any litigation, proceeding or other action or claim. Notwithstanding the provisions hereof, the Placement Agent's share of the liability hereunder shall not be in excess of the amount of fees actually received, or to be received, by the Placement Agent under this Agreement (excluding any amounts received as reimbursement of expenses incurred by the Placement Agent).
- F. These indemnification provisions shall remain in full force and effect whether or not the transaction contemplated by this Agreement is completed and shall survive the termination of this Agreement, and shall be in addition to any liability that the Company might otherwise have to any indemnified party under this Agreement or otherwise.

SECTION 6. ENGAGEMENT TERM. The Placement Agent's engagement hereunder will be until the earlier of the Closing Date and [*], 2023. The date of termination of this Agreement is referred to herein as the "**Termination Date.**" In the event, however, in the course of the Placement Agent's performance of due diligence it deems, it necessary to terminate the engagement, the Placement Agent may do so prior to the Termination Date. The Company may elect to terminate the engagement hereunder for any reason prior to the Termination Date but will remain responsible for fees pursuant to Section 3 hereof with respect to the Placement Agent Securities if sold in the Placement. Notwithstanding anything to the contrary contained herein, the provisions concerning the Company's obligation to pay any fees actually earned pursuant to Section 3 hereof and the provisions concerning confidentiality, indemnification and contribution contained herein, as well as provisions in Sections 10 – 16 hereof will survive any expiration or termination of this Agreement. If this Agreement is terminated prior to the completion of the Placement, all fees and expenses due to the Placement Agent as set forth in Section 3 and Section 4 (except for the \$15,000 non-accountable expense allowance) shall be paid by the Company to the Placement Agent on or before the Termination Date (in the event such fees are earned or owed as of the Termination Date). The Placement Agent agrees not to use any confidential information concerning the Company provided to the Placement Agent by the Company for any purposes other than those contemplated under this Agreement.

SECTION 7. PLACEMENT AGENT INFORMATION. The Company agrees that any information or advice rendered by the Placement Agent in connection with this engagement is for the confidential use of the Company only in its evaluation of the Placement and, except as otherwise required by law, the Company will not disclose or otherwise refer to the advice or information in any manner without the Placement Agent's prior written consent.

SECTION 8. NO FIDUCIARY RELATIONSHIP. This Agreement does not create, and shall not be construed as creating rights enforceable by any person or entity not a party hereto, except those entitled hereto by virtue of the indemnification provisions hereof. The Company acknowledges and agrees that the Placement Agent is not and shall not be construed as a fiduciary of the Company and shall have no duties or liabilities to the equity holders or the creditors of the Company or any other person by virtue of this Agreement or the retention of the Placement Agent hereunder, all of which are hereby expressly waived.

SECTION 9. CLOSING. The obligations of the Placement Agent, and the closing of the sale of the Placement Agent Securities hereunder are subject to the accuracy, when made and on the Closing Date, of the representations and warranties on the part of the Company contained herein and in the Purchase Agreement, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions, except as otherwise disclosed to and acknowledged and waived by the Placement Agent:

- A. All corporate proceedings and other legal matters incident to the authorization, form, execution, delivery and validity of each of this Agreement, the Placement Agent Securities, and all other legal matters relating to this Agreement and the transactions contemplated hereby with respect to the Placement Agent Securities shall be reasonably satisfactory in all material respects to the Placement Agent.
- B. The Placement Agent shall have received from the Company's counsel, Honigman LLP, such counsel's written opinion with respect to the Placement Agent Securities, addressed to the Placement Agent and dated as of the Closing Date, in form and substance reasonably satisfactory to the Placement Agent.
- C. The Placement Agent shall have received a cold comfort letter containing statements and information of the type customarily included in accountants' comfort letters with respect to the financial statements and certain financial information contained in the Registration Statement, the Preliminary Prospectus and the Prospectus, addressed to the Placement Agent and in form and substance satisfactory in all respects to you and to the Auditor, dated as of the Closing Date.

- D. The Placement Agent shall have received executed Lock-Up Agreements from the Company's executive officers and directors.
- E. Shares of Common Stock sold in the Placement, including shares of Common Stock issuable upon the exercise of the Warrants, must be registered under the Exchange Act. The Company shall have taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting or suspending from trading the Common Stock from the Trading Market or other applicable U.S. national exchange, nor has the Company received any information suggesting that the Commission or the Trading Market or other U.S. applicable national exchange is contemplating terminating such registration or listing, except as disclosed in the Registration Statement, the Preliminary Prospectus and the Prospectus.
- F. No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any governmental agency or body which would, as of the Closing Date, prevent the issuance or sale of the Placement Agent Securities or materially and adversely affect or potentially and adversely affect the business or operations of the Company; and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued as of the Closing Date which would prevent the issuance or sale of the Placement Agent Securities or materially and adversely affect or potentially and adversely affect the business or operations of the Company.
- G. The Company shall have entered into a Purchase Agreement with each of the Purchasers of the Placement Agent Securities and such agreements shall be in full force and effect and shall contain representations, warranties and covenants of the Company as agreed upon between the Company and the Purchasers.
- H. FINRA shall have raised no objection to the fairness and reasonableness of the terms and arrangements of this Agreement. In addition, the Company shall, if requested by the Placement Agent, make or authorize Placement Agent's counsel to make on the Company's behalf, any filing with the FINRA Corporate Financing Department pursuant to FINRA Rule 5110 with respect to the Placement and pay all filing fees required in connection therewith.
- I. The Placement Agent shall have received customary certificates of the Company's executive officers, as to the accuracy of the representations and warranties contained in the Purchase Agreement, and a certificate of the Company's secretary certifying (i) that the Company's charter documents are true and complete, have not been modified and are in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Placement are in full force and effect and have not been modified; and (iii) as to the incumbency of the officers of the Company.

If any of the conditions specified in this Section 9 shall not have been fulfilled when and as required by this Agreement, all obligations of the Placement Agent hereunder may be cancelled by the Placement Agent at, or at any time prior to, the Closing Date. Notice of such cancellation shall be given to the Company in writing or orally. Any such oral notice shall be confirmed promptly thereafter in writing.

SECTION 10. GOVERNING LAW. This Agreement will be governed by, and construed in accordance with, the laws of the State of New York applicable to agreements made and to be performed entirely in such State, without regard to principles of conflicts of law. This Agreement may not be assigned by either party without the prior written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns. Any right to trial by jury with respect to any dispute arising under this Agreement or any transaction or conduct in connection herewith is waived. Any dispute arising under this Agreement may be brought into the courts of the State of New York or into the Federal Court located in New York, New York and, by execution and delivery of this Agreement, the Company hereby accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of aforesaid courts. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by delivering a copy thereof via overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. If either party shall commence an action or proceeding to enforce any provisions of this Agreement, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorney's fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

SECTION 11. ENTIRE AGREEMENT/MISCELLANEOUS. This Agreement embodies the entire agreement and understanding between the parties hereto, and supersedes all prior agreements and understandings, relating to the subject matter hereof. If any provision of this Agreement is determined to be invalid or unenforceable in any respect, such determination will not affect such provision in any other respect or any other provision of this Agreement, which will remain in full force and effect. This Agreement may not be amended or otherwise modified or waived except by an instrument in writing signed by both the Placement Agent and the Company. The representations, warranties, agreements and covenants contained herein shall survive the Closing Date of the Placement and delivery of the Placement Agent Securities. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or a .pdf format file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or .pdf signature page were an original thereof.

SECTION 12. NOTICES. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is sent to the email address specified on the signature pages attached hereto prior to 6:30 p.m. (New York City time) on a business day, (b) the next business day after the date of transmission, if such notice or communication is sent to the email address on the signature pages attached hereto on a day that is not a business day or later than 6:30 p.m. (New York City time) on any business day, (c) the third business day following the date of mailing, if sent by an internationally recognized air courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages hereto.

SECTION 13. PRESS ANNOUNCEMENTS. The Company agrees that the Placement Agent shall, on and after the Closing Date, have the right to reference the Placement and the Placement Agent's role in connection therewith in the Placement Agent's marketing materials and on its website and to place advertisements in financial and other newspapers and journals, in each case at its own expense.

Please confirm that the foregoing correctly sets forth our agreement by signing and returning to the Placement Agent the enclosed copy of this Agreement.

[The remainder of this page has been intentionally left blank.]

The foregoing Agreement is hereby accepted and agreed to as of the date first written above.

A.G.P./ALLIANCE GLOBAL PARTNERS

By: _____
Name: Thomas J. Higgins
Title: Managing Director

Address for Notice:
590 Madison Avenue, 28th Floor
New York, NY 10022
Attn: Thomas J. Higgins
Email: thiggins@allianceg.com

Accepted and agreed to as of the date first written above:

ZIVO BIOSCIENCE, INC.

By: _____
Name:
Title:

Address for Notice:
21 E. Long Lake Road, Suite 100
Bloomfield Hills, MI 48304
Attn: Keith Marchiando
Email: kmarchiando@zivobioscience.com

[Signature Page to Placement Agency Agreement]

Consent of Independent Registered Public Accounting Firm

Zivo Bioscience Inc. and Subsidiaries
Bloomfield Hills, Michigan

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated March 14, 2023, relating to the consolidated financial statements of Zivo Bioscience Inc. and subsidiaries appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2022. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, P.C.

Troy, Michigan
October 31, 2023