

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

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)

5912
(Primary Standard Industrial
Classification Code Number)

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

2804 Orchard Lake Rd., Suite 202
Keego Harbor, MI 48320
(248) 452 9866

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

Philip M. Rice II
Chief Financial Officer
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Approximate date of commencement of proposed sale to 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	[]	Accelerated filer	[]
Non-accelerated filer	[X]	Smaller reporting company	[X]
		Emerging Growth Company	[]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. []

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(3)
Units consisting of shares of the Registrant's Common Stock, par value \$0.001 per share ("Common Stock"), and warrants to purchase shares of Common Stock	\$11,500,000	\$1,254.65
Warrants to purchase Common Stock included as part of the Units(2)(4)	—	
Common Stock included as part of the Units(2)(5)	—	
Common Stock issuable upon exercise of the warrants included as part of the Units(2)(6)	\$11,500,000	\$1,254.65
Underwriter warrants to purchase Common Stock (7)	\$	\$
Common Stock issuable upon exercise of the underwriter warrants(5)(7)	\$ 880,000	\$ 96.01
Total:(5)	\$23,880,000	\$2,605.31

- (1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act.
- (2) Includes shares and/or warrants that the underwriters have the option to purchase to cover over-allotments, if any.
- (3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price of the securities registered hereunder.
- (4) Pursuant to Rule 457(i) under the Securities Act, no separate registration fee is required for the warrants because the warrants are being registered in the same registration statement as the securities of the Registrant underlying the warrants.
- (5) Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of additional securities as may be issuable to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (6) Includes shares issuable upon exercise of the warrants that the underwriters have the option to purchase to cover over-allotments, if any.
- (7) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. We have agreed to issue upon the closing of this offering, warrants to Maxim Group LLC (or its designees) entitling it to purchase up to 8% of the aggregate shares of Common Stock sold to retail investors in this offering at an exercise price of 110% of the public offering price per unit.

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, as amended, or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to such 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 DECEMBER 9, 2020

ZIVO Bioscience, Inc.



**Units
Each Unit Consisting of
One Share of Common Stock and
One Warrant to Purchase One Share of Common Stock**

We are offering (this "Offering") units (the "Units" and each a "Unit"), with each Unit consisting of one share of common stock, \$0.001 par value per share (the "Common Stock"), and a warrant (the "Unit Warrant") to purchase one share of Common Stock at an exercise price of \$ per share, or % of the price of each Unit sold in the offering of ZIVO Bioscience, Inc., a Nevada corporation (the "Company"), in a firm commitment underwritten public offering (this "Offering") at an assumed public offering price of \$ per Unit (the "Public Offering Price").

The Unit Warrants offered hereby may be exercised from time to time beginning on the date of issuance and expire on . Our Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of our Common Stock and the warrants comprising our Units are immediately separable and will be issued separately in this Offering.

Our Common Stock is currently quoted on the OTCQB Marketplace ("OTCQB") under the symbol "ZIVO." On December 8, 2020, the last reported price for our Common Stock as reported on the OTCQB was \$0.13 per share. There is currently no public market for the offered warrants. We have applied to list our Common Stock and warrants on the Nasdaq Capital Market under the symbol "ZIVO", and "ZIVOW", respectively. There can be no assurance that we will be successful in listing our Common Stock or warrants on the Nasdaq Capital Market. Prices of our Common Stock as reported on the OTCQB may not be indicative of the prices of our Common Stock if our Common Stock were traded on the Nasdaq Capital Market.

The offering price of the Units will be determined between the underwriters and us at the time of pricing, considering our historical performance and capital structure, prevailing market conditions, and overall assessment of our business, and may be at a discount to the current market price. Therefore, the recent market price used throughout this prospectus may not be indicative of the actual public offering price for our Common Stock and the warrants.

The share and per share information in the prospectus does not reflect a recommended reverse stock split of the outstanding Common Stock in a range of 1-for-25 to 1-for-120 to occur before the Offering.

Investing in our securities involves significant risks. You should review carefully the "Risk Factors" beginning on page 7 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

The Securities and Exchange Commission and state securities regulators have not 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 Unit	Total
Public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds, before expenses, to us ⁽²⁾	\$	\$

- (1) We have also agreed to issue warrants to purchase shares of our Common Stock to the representative of underwriters and to reimburse the representative of the underwriters for certain expenses. See “Underwriting” for additional information regarding total underwriter compensation.
- (2) The amount of offering proceeds to us presented in this table does not give effect to any exercise of the:
- (i) Over-allotment option (if any) we have granted to the representative of the underwriters described below; and
 - (ii) warrants being issued in this Offering, if any.

We have granted a 45-day option to the underwriters to purchase up to additional shares of Common Stock at a price of \$ per share and/or additional warrants at a price of \$ per warrant, in any combination thereof, less, in each case, the underwriting discounts payable by us, solely to cover overallocments, if any. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be and the total proceeds to us, before expenses, will be \$. The underwriters expect to deliver the Securities against payment to the investors in this offering on , 2020.

Lead Book-Running Manager
Maxim Group LLC

Co-Book-Running Manager
Joseph Gunnar & Co. LLC

The date of this prospectus is , 2020

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ABOUT THIS PROSPECTUS

The registration statement of which this prospectus forms a part that we have filed with the Securities and Exchange Commission, or SEC, includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC, together with the additional information described under the heading “*Where You Can Find More Information.*”

You should rely only on the information contained in this prospectus prepared by or on behalf of us. We have not, and the underwriters have not, authorized anyone to provide you with information different from, or in addition to, that contained in this prospectus. 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 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 are not offering to sell or seeking offers to purchase these securities in any jurisdiction where the offer or sale is not permitted. We 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 subsidiaries. We also have allowed pending trademark applications for “KALGAE™,” 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.

PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere in 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 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

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 – ZIVO Product Candidates

ZIVO has developed bioactive compounds derived from its proprietary algal culture, targeting human and animal diseases, such as poultry coccidiosis, bovine mastitis, human cholesterol, and rheumatoid arthritis. As part of its strategy, ZIVO will continue to seek strategic partners for late stage development, regulatory preparation and commercialization of its products in key global markets.

Agtech – ZIVO's Algal Biomass

ZIVO's algal biomass is currently produced in Arizona, India and Peru. ZIVO's algal biomass contains Vitamin A, protein, iron, important fatty acids, non-starch polysaccharides and other micronutrients that position the product as a viable functional food ingredient and nutritional enhancement for human and animal use. The Company currently has contracts with NutriQuest, Grekin Laboratories, and others for the sale of its algal biomass.

ZIVO Pipeline

Biotech:

- **Poultry Gut Health:** ZIVO has conducted multiple poultry clinical trials to develop and refine a treatment for coccidiosis, a condition that inflames the digestive tracts of poultry, currently treated with various antibiotics, antimicrobials and chemicals.
- **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 our lead 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.

Agtech:

- **Human Food Ingredient:** ZIVO algal biomass was GRAS affirmed in late 2018 and is therefore available and suitable for human consumption as an ingredient in foods and beverages.
- **Joint/Exertion Recovery:** Previous animal studies involving ZIVO's algal biomass supported some early evidence that ZIVO's algal biomass may have potential health benefits in animals, but further testing and validation is required to make specific structure/function claims for human sports nutrition applications, if any, per regulatory requirements.
- **Poultry Feed:** ZIVO anticipates that following commercialization, dried ZIVO algal biomass would be mixed directly into poultry feed at an estimated ratio of 1kg to 1000kg at the feed mill and may be fed continuously from hatch to harvest, or at certain time periods in the grow cycle.
- **Aquaculture:** A third party aquafeed laboratory has indicated to ZIVO that early research yielded positive results regarding the suitability of ZIVO's algal biomass for the aquafeed market.

Listing on the Nasdaq Capital Market

Our Common Stock is currently quoted on the OTCQB Market. In connection with this Offering, we have applied to list our Common Stock and warrants offered in the Offering on the Nasdaq Capital Market (“Nasdaq”) under the symbols “ZIVO” and “ZIVOW”, respectively. If our listing application is approved, we expect to list our Common Stock and the warrants offered in the Offering on Nasdaq upon consummation of the Offering, at which point our Common Stock will cease to be traded on the OTCQB Market. No assurance can be given that our listing application will be approved. This Offering will occur only if Nasdaq approves the listing of our Common Stock and warrants. Nasdaq listing requirements include, among other things, a stock price threshold. As a result, prior to effectiveness, we will need to take the necessary steps to meet Nasdaq listing requirements, including but not limited to a reverse split of our outstanding Common Stock. If Nasdaq does not approve the listing of our Common Stock, we will not proceed with this Offering. There can be no assurance that our Common Stock will be listed on the Nasdaq.

Reverse Stock Split

On November 11, 2020, ZIVO’s stockholders approved a reverse stock split of the Common Stock within the range of 1-for-25 to 1-for-120 of our issued and outstanding shares of Common Stock and authorized the Board, in its discretion, to determine the final ratio, effective date, and date of filing of the certificate of amendment to our articles of incorporation, as amended, in connection with the reverse stock split. The Board has not yet finalized the stock-split, therefore all option, share and per share information in this prospectus does not give effect to any proposed reverse stock split.

Underwriters' warrants

We will issue to Maxim Group LLC, as the representative of the underwriters, upon closing of this Offering compensation warrants entitling the underwriters or their designees to purchase up to 8.0% of the aggregate number of shares of our Common Stock that we issue to retail investors in this Offering. The warrants are exercisable commencing 180 days after the effective date of the registration statement related to this Offering, and will expire five years after the effective date. The warrants will have an exercise price per share equal to 110% of the public offering price of our Units offered hereby. See "*Underwriting*."

Lock-up

Our directors, executive officers, and stockholders who own 3% or more of the outstanding shares of our Common Stock have agreed with the underwriters 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 180 days commencing on the date of this prospectus. See "*Underwriting*."

Reverse Stock Split

At the annual stockholder meeting held on November 11, 2020, stockholders approved a reverse stock split of the Common Stock within the range of 1-for-25 to 1-for-120 of our issued and outstanding shares of our Common Stock and authorized the Board, in its discretion, to determine the final ratio. We intend to effectuate the reverse split of our Common Stock in a ratio to be determined by the Board prior to consummation of this Offering. All option, share and per share information in this prospectus does not give effect to the proposed reverse stock split.

Risk factors

You should read the "*Risk Factors*" section of this prospectus and the documents incorporated herein for a discussion of certain factors to consider carefully before deciding to purchase any of our securities.

Outstanding Shares

The number of shares of Common Stock to be outstanding immediately following this Offering excludes:

- 49,000,000 shares of our Common Stock issuable upon the exercise of options outstanding under our 2019 Incentive Plan as of September 30, 2020, with a weighted-average exercise price of \$0.12 per share;
- 15,000,000 shares of our Common Stock potentially issuable upon the exercise of unearned performance-based options under our 2019 Incentive Plan as of September 30, 2020;
- 196,847,006 shares of our Common Stock issuable upon the exercise of the warrants outstanding as of September 30, 2020 with a weighted-average exercise price of \$0.09 per share;
- 3,200,000 shares of our Common Stock issuable upon exercise of warrants issued after September 30, 2020 (that remain unexercised);
- 38,000,000 shares of our Common Stock reserved for future issuance under our equity compensation plans;
- 76,578,752 shares of our Common Stock issuable upon the optional conversion of our convertible promissory notes (including principal and related accrued interest); and
- the shares of our Common Stock that may be issued upon exercise of the underwriter warrants with a weighted-average exercise price of \$ per share.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in 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 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; and
- our liquidity.

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.

RISK FACTORS

An investment in our securities involves a high degree of risk. In addition to the other information included in this prospectus, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations," you should carefully consider the risks described below, before making an investment decision with respect to the securities. We expect to update these Risk Factors from time to time in the periodic and current reports that we file with the SEC after the date of this prospectus. Please refer to these subsequent reports for additional information relating to the risks associated with investing in our Common Stock and the accompanying warrants. If any of such risks and uncertainties actually occurs, our business, financial condition, and results of operations could be severely harmed. This could cause the trading price of our Common Stock and our warrants to decline, and you could lose all or part of your investment.

Risks Relating to Our Business

The COVID-19 pandemic and measures taken to contain it have significantly adversely affected, and are likely to continue to significantly adversely affect, our business, results of operations, financial condition, cash flows, liquidity and stock price.

We face risks related to health pandemics and outbreaks of communicable diseases, and in particular, the recent outbreak around the world of the highly transmissible and pathogenic COVID-19 coronavirus. The COVID-19 pandemic and other outbreaks have resulted in, and may continue to result in delays in or the suspension of our product development activities, our regulatory work streams, our research and development activities and other important commercial functions. We are also dependent upon third parties for the production and growth of our proprietary algae strains.

As the COVID-19 pandemic continues, we have experienced, and may continue to experience additional disruptions that could severely impact our business and planned trials, including:

- diversion of contract research organization ("CRO") resources away from the conduct of studies, including the diversion of available test sites supporting the conduct of field studies and clinical trials;
- changes in local regulations as part of a response to the COVID-19 which may require us to change the way in which trials are conducted and may result in unexpected costs; and
- delays in necessary interactions with academic researchers at universities, life science research labs, ethics committees and other important agencies and contractors due to limitations in employee resources or forced furlough of government employees.

Further, in our operations as a public company, prolonged government disruptions, global pandemics and other natural disasters or geopolitical actions, including related to the COVID-19 pandemic, could affect our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations. Prior to the COVID-19 pandemic, our expectation was that we would move forward with the production of our algal biomass, validation and purification. However, these were temporarily suspended and/or delayed, and may continue in diminished capacity.

In addition to the risks specifically described above, the COVID-19 pandemic has exacerbated and precipitated the other risks described herein, and may continue to do so, in ways that we are not currently able to predict, any of which could significantly adversely affect our business, results of operations, financial condition, cash flows, liquidity or stock price.

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 nine months ended September 30, 2020 was \$7,212,568 and our accumulated deficit totaled approximately \$97 million as of September 30, 2020, and approximately \$90 million as of December 31, 2019. 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 unaudited consolidated financial statements as of and for the nine months ended September 30, 2020 and the year ended December 31, 2019 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, 2019 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 or companion diagnostic 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 a small number of growers, the loss of any of these growers would have a material adverse impact on our operating results and cash flows.

Currently only three facilities grow our ZIVO algae, and only one of those facilities is producing algae under an ongoing contract. Either of the other two facilities could halt production at any time. Any termination of a business relationship with, or a significant sustained reduction in business received from, one of these growers 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.

Investors may demand payment under our convertible notes.

We have significant commitments and obligations. As of September 30, 2020, all of the Company’s outstanding convertible notes (the “Notes,” described in Note 6 to the Financial Statements included on page F-35 hereto) issued to certain accredited investors (the “Investors”) are due and payable. The Company has outstanding principal balance of approximately \$5.2 million.

The Company is in discussion with the Investors to determine a revised repayment and conversion schedule while the Investors reserve all of their rights under the Notes. There can be no assurances as to the outcome of such discussions.

If the Investors demand payment under the Notes, we will not have sufficient resources to make the required payments. We do not have sufficient resources to meet our obligations under the Notes unless we are able to raise substantial additional financing on acceptable terms or secure funds from new or existing partners. We cannot assure that financing will be available on favorable terms or at all. Additionally, these conditions may increase the cost to raise capital. If additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities would result in dilution to our existing stockholders.

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
- delays or difficulties in obtaining regulatory approval in the EU for use of our algal biomass for animal feed.

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.

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.

Risks Relating to Our Intellectual Property

We may not be able to protect our proprietary algae cultures and bioactive compounds in the marketplace.

Our success will depend, in part, on our ability to obtain patents, protect our trade secrets and operate without infringing on the proprietary rights of others. We rely upon a combination of patents, trade secret protection, and confidentiality agreements to protect the intellectual property of our products. Patents might not be issued or granted with respect to our patent applications that are currently pending, and issued or granted patents might later be found to be invalid or unenforceable, be interpreted in a manner that does not adequately protect our products or any future products, or fail to otherwise provide us with any competitive advantage. As such, we do not know the degree of future protection that we will have on our products, if any, and a failure to obtain adequate intellectual property protection with respect to our products could have a material adverse impact on our business.

Patent protection may not be available for some of the therapeutic candidates or products we are developing. If we must spend significant time and money protecting or enforcing our patents, designing around patents held by others or licensing, potentially for large fees, patents or other proprietary rights held by others, our business, results of operations and financial condition may be harmed.

Risks Related to Our Common Stock

An active trading market may not develop for our securities and you may not be able to sell your Common Stock or warrants at or above the offering price per share or the warrant exercise price per share.

Our Common Stock is currently quoted on the OTCQB Marketplace and there is not any significant trading activity in our Common Stock or market for shares of our Common Stock. We have applied to list our Common Stock and warrants on the Nasdaq Capital Market under the symbols “ZIVO” and “ZIVOW,” respectively. There can be no assurance that we will be successful in listing our Common Stock and/or our warrants on the Nasdaq Capital Market. Even if our Common Stock and warrants are listed on the Nasdaq Capital Market, we cannot predict the extent to which investor interest in our company will lead to the development of any active trading market in our Common Stock and/or warrants or how liquid the market for our Common Stock and/or warrants might become. If a market does not develop or is not sustained it may be difficult for you to sell your securities at the time you wish to sell them, at a price that is attractive to you, or at all. You may not be able to sell your Common Stock or warrants at or above the offering price or warrant exercise price per share.

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:

- 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 and warrants;
- 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; 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 December 4, 2020, our executive officers, directors, 5% stockholders and their affiliates beneficially own approximately 62.7% of our voting stock. Therefore, these stockholders will have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders, acting together, may be able to control 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 you may believe are in your best interest as one of our stockholders.

Our financial controls and procedures may not be sufficient to accurately or timely report our financial condition or results of operations, which may adversely affect investor confidence in us and, as a result, the value of our Common Stock.

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on internal control over financial reporting.

If we identify material weaknesses in our internal control over financial reporting in the future, if we are unable to comply with the requirements of Section 404 in a timely manner, if we are unable to assert that our internal control over financial reporting is effective, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our Common Stock could be adversely affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

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's 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.

Raising additional funds through debt or equity financing could be dilutive and may cause the market price of our Common Stock to decline.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic collaborations or partnerships, or marketing, distribution or licensing arrangements with third parties, we may be required to limit valuable rights to our intellectual property, technologies, therapeutic candidates or future revenue streams, or grant licenses or other rights on terms that are not favorable to us. Furthermore, any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our therapeutic candidates.

Sales of a substantial number of shares of our Common Stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our Common Stock in the public market or the perception that these sales might occur, could depress the market price of our Common Stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our Common Stock.

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 are at risk of securities class action litigation.

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.

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.

Risks Related to this Offering

Resales of our Common Stock, including the Common Stock issuable upon exercise of the 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 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 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 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, 2020, we had 406,924,005 shares of Common Stock outstanding. Substantially all of such shares of Common Stock may be sold in the public market. 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 warrants, could decline.

You may experience future dilution as a result of future equity offerings.

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 that could result in further dilution to investors purchasing our Common Stock in this Offering or result in downward pressure on the price of our Common Stock and the warrants. We may sell shares of our Common Stock or other securities in any other offering at prices that are higher or lower than the prices paid by investors in this Offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders.

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.

We have not designated any portion of the net proceeds from this Offering to be used for any particular purpose. Accordingly, 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 Unit 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 warrants being offered in this Offering, no value is attributed to such warrants and such warrants are classified as and accounted for as equity, you will experience immediate dilution of \$ 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 Unit. In addition, if previously issued options and warrants to acquire Common Stock are exercised at prices below the offering price or the accompanying warrants being offered in this Offering are accounted for as liabilities, you will experience further dilution. 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 Unit price, 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. We cannot predict the effect, if any, that the availability of shares for future sale represented by the warrants issued in connection with this Offering will have on the market price of our Common Stock from time to time. Further, if a substantial number of Units are purchased and the holders of the shares received upon exercise of the related warrants choose to sell some or all of the shares underlying the warrants, the resulting sales could depress the market price of our Common Stock.

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

In determining the Unit price, our 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 warrants being issued as components of the Unit and comparable precedent transactions. The Unit 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 Unit price. You should not consider the Unit price as an indication of the value of our Company or our Common Stock.

If our planned reverse stock split does not result in a proportionate increase in the price of our Common Stock, we may not be able to list our Common Stock and the warrants on the Nasdaq Capital Market.

We expect that the reverse stock split of our outstanding Common Stock will increase the market price of our Common Stock so that we will be able to meet the minimum bid price requirement of the listing rules of the Nasdaq Capital Market. However, the effect of a reverse stock split upon the market price of our Common Stock cannot be predicted with certainty, and the results of reverse stock splits by companies in similar circumstances have been varied. It is possible that the market price of our Common Stock following the reverse stock split will not increase sufficiently for us to be in compliance with the minimum bid price requirement. If we are unable to meet the minimum bid price requirement, we may be unable to list our shares on the Nasdaq Capital Market, in which case this Offering will not be completed.

Risks Related to the Warrants

The warrants may not have any value and if an active, liquid trading market for the warrants does not develop, you may not be able to sell your warrants quickly or at or above the price you paid for them.

The warrants issued in this Offering will be immediately exercisable and expire on . The warrants will have an initial exercise price equal to \$. In the event that our Common Stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

Prior to this Offering, there has been no public market for any of our warrants. We have applied to list the Warrants on the Nasdaq Capital Market. However, there can be no assurance that such listing will be approved. An active trading market may not develop for the warrants to be sold in this Offering or, if developed, may not be sustained, and the market for the warrants may be highly volatile or may decline regardless of our operating performance. The lack of an active market may impair your ability to sell your warrants at the time you wish to sell them or at a price that you consider reasonable.

Since the warrants are executory contracts, they may have no value in a bankruptcy or reorganization proceeding.

In the event a bankruptcy or reorganization proceeding is commenced by or against us, a bankruptcy court may hold that any unexercised warrants are executory contracts that are subject to rejection by us with the approval of the bankruptcy court. As a result, holders of the warrants may, even if we have sufficient funds, not be entitled to receive any consideration for their warrants or may receive an amount less than they would be entitled to if they had exercised their warrants prior to the commencement of any such bankruptcy or reorganization proceeding.

Holders of our warrants will have no rights as a Common Stockholder until they acquire our Common Stock.

Until investors acquire shares of our Common Stock upon exercise of the warrants being offered in this Offering, they will have no rights with respect to our Common Stock such as voting rights or the right to receive dividends. Upon exercise of such 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.

We may amend the terms of the warrants in a way that may be adverse to holders with the approval by the holders of a majority of the then outstanding warrants.

Our warrants will be issued in physical certificated form under a warrant agreement. The warrant agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision. All other modifications or amendments, including any amendment to increase the exercise price of the warrants or shorten the exercise period of the warrants, shall require the written consent of the registered holders of a majority of the then outstanding warrants.

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 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 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 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 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 warrants are exercised, you may experience dilution to your holdings.

USE OF PROCEEDS

We estimate that our net proceeds from this Offering will be approximately \$9,050,000, based on an assumed public offering price of \$ per Unit, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the over-allotment option is exercised in full, we estimate that our net proceeds will be approximately \$10,430,000.

This estimate excludes the proceeds, if any, from exercise of the warrants sold in this Offering. If all of the warrants sold in this Offering were to be exercised in cash at the exercise price of \$ per share, we would receive additional net proceeds of approximately \$ million. We cannot predict when or if these warrants will be exercised. It is possible that these warrants may expire and may never be exercised.

We intend to use the net proceeds for:

Proceeds:	
Gross Proceeds	\$ 10,000,000
Fees and Expenses	(950,000)
Net Proceeds	\$ 9,050,000
Uses:	
Agtech - Research and Development	\$ 1,555,000
Biotech - Research and Development	\$ 3,100,000
Expansion of Production of Algal Biomass	375,000
Working Capital	4,020,000
Total Uses	\$ 9,050,000

Funding for “Research and Development” includes \$1.2 million for poultry gut health, \$1.7 million to meet compliance benchmarks for agtech product candidates, \$115,000 to meet certain biotech licensing milestones and \$530,000 for inoculum production and cell banking.

The actual allocation of proceeds realized from this Offering will depend upon our operating revenues and cash position and our working capital requirements and may change.

Therefore, as of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this Offering. Accordingly, we will have discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the proceeds of this Offering. We have not determined the amount of net proceeds to be used specifically for such purposes. Pending the use of any net proceeds, we expect to invest the net proceeds in interest-bearing, marketable securities.

Each \$1.00 increase (decrease) in the assumed public offering price of \$ per Unit would change our net proceeds by \$, assuming the number of shares offered by us, as set forth on the cover of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 100,000 in the number of shares we are offering would increase (decrease) the net proceeds to us from this Offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately \$, assuming the assumed public offering price stays the same.

DETERMINATION OF OFFERING PRICE

The offering price of the Units has been negotiated between the underwriters and us considering our historical performance and capital structure, prevailing market conditions, and overall assessment of our business. Our Common Stock is currently quoted on the OTCQB under the ticker symbol "ZIVO." On December 8, 2020, the last reported sale price of our Common Stock was \$0.13 per share.

CAPITALIZATION

The following table presents a summary of our cash and cash equivalents and capitalization as of September 30, 2020:

- on an actual basis;
- on a pro forma as adjusted basis, to give further effect to: the proposed reverse stock split of the outstanding Common Stock of the Company at an assumed -for-1 ratio and \$1,499,151 of proceeds received by ZIVO following September 30, 2020 pursuant to (i) share issuances, (ii) warrant exercises, and (iii) participation agreements; and
- on a pro forma as adjusted basis to take into account the pro forma adjustments set forth above and the issuance in this Offering of Units, at an assumed public offering price of \$ per Unit, after deducting underwriting discounts and commissions and other estimated offering expenses payable by us. The as adjusted basis assumes no exercise of the overallotment option by the underwriters, and excludes the proceeds, if any, from the exercise of any warrants issued in this Offering.

You should read the following table in conjunction with our historical financial statements and the related notes thereto incorporated by reference into this prospectus.

As of September 30, 2020 Unaudited

	Actual	Pro Forma	Pro Forma As Adjusted
Assets			
Cash and cash equivalents	\$ 55,367		\$
Liabilities			
Total liabilities	11,221,288		
Stockholders' Equity			
Common Stock, \$0.001 par value, 1,200,000,000 shares authorized; actual 406,924,005 shares issued and outstanding; pro forma, as adjusted, shares issued and outstanding	406,924		
Additional paid-in capital	85,672,742		
Accumulated deficit	(97,170,514)		
Total Stockholders' Equity	(11,090,848)		
Total Capitalization	130,440		

The foregoing as adjusted information is illustrative only, and our capitalization following the completion of this Offering will be adjusted based on the actual public offering price and other terms of this Offering determined at pricing. You should read this table together with our financial statements and the related notes appearing elsewhere in this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this prospectus.

The table and discussion set forth in the table above excludes:

- 49,000,000 shares of our Common Stock issuable upon the exercise of options outstanding under our 2019 Incentive Plan as of September 30, 2020, with a weighted-average exercise price of \$0.11 per share;
- 15,000,000 shares of our Common Stock potentially issuable upon the exercise of unearned performance-based options under our 2019 Incentive Plan as of September 30, 2020;
- 196,847,006 shares of our Common Stock issuable upon the exercise of the warrants outstanding as of September 30, 2020 with a weighted-average exercise price of \$0.09 per share;
- 3,200,000 shares of our Common Stock issuable upon exercise of warrants issued after September 30, 2020 (that remain unexercised);
- 38,000,000 shares of our Common Stock reserved for future issuance under our equity compensation plans;
- 76,578,752 shares of our Common Stock issuable upon the optional conversion of our convertible promissory notes (including principal and related accrued interest); and
- the shares of our Common Stock that may be issued upon exercise of the underwriter warrants with a weighted-average exercise price of \$ per share.

MARKET FOR OUR COMMON STOCK

Our Common Stock is quoted on the OTCQB under the trading symbol “ZIVO.” Quotations on the OTCQB reflect inter-dealer prices, without retail mark-up, mark-down commission, and may not represent actual transactions. On December 8, 2020, the last reported sale price of our Common Stock was \$0.13 per share (\$ per share on an as adjusted basis).

Holders

As of September 30, 2020, we had approximately 243 shareholders of record of our Common Stock.

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 Unit and the adjusted net tangible book value per share of our Common Stock after this Offering.

The historical net tangible book value of our Common Stock as of September 30, 2020, was approximately (\$11.1) million, or approximately (\$0.03) per share. Net tangible book value 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 September 30, 2020, was approximately \$ () million, or approximately \$ () per share. Pro forma net tangible book value (deficit) gives effect to and \$1,499,151 of proceeds received by ZIVO following September 30, 2020 pursuant to (i) share issuances, (ii) warrant exercises, and (iii) participation agreements.

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 Units in this Offering at an assumed public offering price of \$ per Unit (attributing no value to the warrants or proceeds from the sale of warrants being offered), and after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2020 would have been approximately \$ per share of Common Stock. This represents an immediate increase in net tangible book value of \$ per share to our existing stockholders and an immediate dilution of \$ per share to investors purchasing shares of Common Stock in this Offering.

Assumed public offering price per Unit	\$
Historical Net tangible book value per share at September 30, 2020	\$ (0.03)
Increase to net tangible book value per share attributable to investors purchasing our Common Stock in this Offering	
Pro forma, net tangible book value per share after giving effect to the pro forma adjustments referenced under “Capitalization”	()
Increase to pro forma net tangible book value per share attributable to investors purchasing our Common Stock in this Offering	
Pro forma, as adjusted net tangible book value per share as of September 30, 2020, after giving effect to this Offering	
Dilution of pro forma net tangible book value per share to investors purchasing our Common Stock in this Offering	\$

Each \$1.00 increase (decrease) in the assumed public offering price of \$ per share, would increase (decrease) our as adjusted net tangible book deficit per share to new investors by \$, and would increase (decrease) dilution per share to new investors in this Offering by \$, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated discounts and commissions and estimated offering expenses payable by us. In addition, to the extent any outstanding options to purchase Common Stock are exercised or any outstanding restricted stock units vest, new investors would experience further dilution. If the underwriters exercise their option to purchase additional shares in full, the pro forma as adjusted net tangible book value per share of our Common Stock after giving effect to this Offering would be approximately \$ per share, and the dilution in pro forma as adjusted net tangible book value per share to investors in this Offering would be approximately \$ per share of Common Stock.

The table and discussion set forth in the table above excludes:

- 49,000,000 shares of our Common Stock issuable upon the exercise of options outstanding under our 2019 Incentive Plan as of September 30, 2020, with a weighted-average exercise price of \$0.12 per share;
- 15,000,000 shares of our Common Stock potentially issuable upon the exercise of unearned performance-based options under our 2019 Incentive Plan as of September 30, 2020;
- 196,847,006 shares of our Common Stock issuable upon the exercise of the warrants outstanding as of September 30, 2020 with a weighted-average exercise price of \$0.09 per share;
- 3,200,000 shares of our Common Stock issuable upon exercise of warrants issued after September 30, 2020 (that remain unexercised);
- 38,000,000 shares of our Common Stock reserved for future issuance under our equity compensation plans;
- 76,578,752 shares of our Common Stock issuable upon the optional conversion of our convertible promissory notes (including principal and related accrued interest); and
- the shares of our Common Stock that may be issued upon exercise of the underwriter warrants with a weighted-average exercise price of \$ per share.

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.

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 – ZIVO Product Candidates

ZIVO has developed bioactive compounds derived from its proprietary algal culture, targeting human and animal diseases, such as poultry coccidiosis, bovine mastitis, human cholesterol, and rheumatoid arthritis. As part of its strategy, ZIVO will continue to seek strategic partners for late stage development, regulatory preparation and commercialization of its products in key global markets.

Agtech – ZIVO's Algal Biomass

ZIVO's algal biomass is currently produced in Arizona, India and Peru. ZIVO's algal biomass contains Vitamin A, protein, iron, important fatty acids, non-starch polysaccharides and other micronutrients that position the product as a viable functional food ingredient and nutritional enhancement for human and animal use. The Company currently has contracts with NutriQuest, Grekin Laboratories, and others for the sale of its algal biomass.

ZIVO Pipeline

Biotech:

- **Poultry Gut Health:** ZIVO has conducted multiple poultry clinical trials to develop and refine a treatment for coccidiosis, a condition that inflames the digestive tracts of poultry, currently treated with various antibiotics, antimicrobials and chemicals.
- **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 our lead 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.

Agtech:

- **Human Food Ingredient:** ZIVO algal biomass was GRAS affirmed in late 2018 and is therefore available and suitable for human consumption as an ingredient in foods and beverages.
- **Joint/Exertion Recovery:** Previous animal studies involving ZIVO's algal biomass supported some early evidence that ZIVO's algal biomass may have potential health benefits in animals, but further testing and validation is required to make specific structure/function claims for human sports nutrition applications, if any, per regulatory requirements.
- **Poultry Feed:** ZIVO anticipates that following commercialization, dried ZIVO algal biomass would be mixed directly into poultry feed at an estimated ratio of 1kg to 1000kg at the feed mill and may be fed continuously from hatch to harvest, or at certain time periods in the grow cycle.
- **Aquaculture:** A third party aquafeed laboratory has indicated to ZIVO that early research yielded positive results regarding the suitability of ZIVO's algal biomass for the aquafeed market.

Our Market Opportunity

Biotech

Poultry Gut Health

Coccidiosis, or the inflammation of the intestinal tract, is one of the largest health and animal welfare problems facing the poultry flocks. Roughly \$3.0 billion was spent in 2006 to control this condition, of which antibiotics and antimicrobials comprise a significant percentage. Consumer and regulatory pressure has created what we believe to be an opportunity to develop and market an alternative to various antimicrobials routinely mixed into chicken feed. The Company is developing a product candidate designed to boost immune response, thereby combatting a broad range of infective pathogens, with the goal of simultaneously improving feed conversion and productivity.

Bovine Mastitis

Bovine mastitis, or inflammation of the udder, can halt milk production and may result in unsaleable milk. The U.S. cow herd averaged 9.399 million cows in 2018 and U.S. milk production hit 217.6 billion pounds in 2018. Bovine mastitis affects approximately 1.5 million out of the 9 million dairy cows in the U.S. on an annual basis, and the average loss per cow per year in milk output is 846 pounds. Current treatments are primarily antibiotic, which requires a holding period and disposal of milk during that holding period.

Canine Joint Health

Osteoarthritis (OA) is one of the most common ailments among pet dogs, with prevalence believed to be greater than 20%. The U.S. is expected to hold the largest share of the global market for veterinary pain management due to the vast pet population in the region, increasing animal healthcare expenditure, large number of hospitals and clinics, growing pool of veterinarians, and high prevalence of diseases causing pain. According to IBISWorld, the U.S. veterinary services market showed a solid, steady increase in consumer spending over the past few years.

Human Immune Modification

Beyond arthritis, there are more than 80 types of clinically different autoimmune diseases. Many major pharmaceutical and biopharmaceutical companies have extensive licensing and development programs focused on autoimmune/anti-inflammatory R&D. The rise in strategic alliances by discovery stage R&D companies like ZIVO is one of the latest trends that may gain traction in the autoimmune and anti-inflammatory therapeutics market in the coming years.

Agtech

Human Functional Food Ingredients

The market for healthy foods, health foods, vegan and vegetarian food products continues to gain traction in the US and worldwide, especially as consumers look for healthful and nutritional ingredients to improve overall health and immune response. The drive toward plant-based proteins and microbiome-enhancing natural foods and food/beverage ingredients and dietary supplements continues to expand.

Joint/Exertion Recovery

The market for protein bars, energy drinks, and dietary supplements has been increasing among fitness mavens, bodybuilders and athletes. An increasing number of health & fitness centers has been positively influencing the growth of this market as these centers are involved in the endorsement of sports and fitness nutrition products among their respective consumers. Products may take the form of typical capsules or as mixable powders, beverages, snacks and crisps, many of them vegan or vegetarian.

Poultry Feed Ingredient

Poultry producers combat infectious disease, environmental stressors, feed issues and economic pressures to meet yield, quality and food safety targets not just in the U.S. and E.U., but worldwide. In North America, over 66 million metric tons of poultry feed is produced and consumed each year. Medicated feeds with antibiotics, antimicrobials, ionophores, sulfa and copper-based chemicals are under scrutiny, facing consumer pushback. Market and regulatory pressures are encouraging producers to consider non-drug alternatives to keep birds healthy and growing which has created a market for premium “natural” feed ingredients.

Aquaculture

The ingredients used for providing balanced nutrition for aquaculture species are available in the form of pellets, granules, and powders, among others. The aquafeed is primarily sourced from vegetables, grains, oilseeds and the like. The aquafeed industry is fragmented, with the top 5-6 companies accounting for almost 40% of the market share. These companies are targeting countries in most parts of the world for business expansion, either by investing in new production units or acquiring established small players in specific regions. Investment in R&D activities to introduce new and efficient products is another strategy adopted by manufacturers to stay ahead of their competition in the matured markets of North America and Europe.

Clinical Development and Regulatory Pathway

Clinical Experience, Future Development and Clinical Trial Plans

Our algal biomass product is at different stages of development for different applications. Accordingly, the various regulatory processes required for the various applications are at different stages of completion. With respect to human food and beverage applications, we have completed the FDA's self-affirmed GRAS process for our dried algal biomass which allows for product commercialization with a consumption limit of up to nine grams per day. Studies are planned, however, to support a significantly higher allowable daily intake that, if supported, will be justified via the notified GRAS process. For animal feed applications in the European Union, our dried algal biomass product may be now commercialized as a feed material under an existing category for dried algal biomass as listed in the EU Feed Materials Catalogue.

Beyond use of the dried algal biomass for use in human food and beverage in the U.S., and as an animal feed material in the EU, ZIVO has not received the required approvals for commercialization in the U.S. or any other country for any product form or application beyond nutritional claims. To date, however, the Company has performed a number of bench top and pre-clinical tests (which include animal testing, performance, and other tests required by regulatory bodies) for various product forms and applications pertinent to qualified health claims and structure/function claims. As described below, the Company intends to perform additional testing of its product in connection with obtaining the requisite regulatory approvals.

Below we have summarized, for each component of our products under development, the current stage of development, our plans for further testing or clinical trials and our expectations regarding the requirements for regulatory approval and timing of developmental milestones:

Product	Stage of Development and/or Regulatory Status to Date	Next Steps
Poultry Gut Health (coccidiosis)	<p>The Company has conducted 16 clinical trials to date. The early studies focused on determining the general effects, while the more recent studies examined dosage levels, interactions with vaccines and different feed mixes.</p> <p><i>Discovery Stage, pre-GMP, pre-GLP</i></p>	<p>The Company expects to conduct several more studies on behalf of prospective licensees as part of licensing negotiations, which we estimate will require approximately \$1.2 million to complete.</p>
Bovine Mastitis	<p>The Company has conducted multiple <i>in vitro</i> and <i>ex vivo</i> experiments to determine general effects, and four clinical trials to focus on product modalities and methods of administration.</p> <p><i>Discovery Stage, pre-GMP, pre-GLP</i></p>	<p>The Company expects to conduct three or more small studies to validate a product candidate previously validated in poultry studies, among other similar candidates and to make refinements to same before offering to potential licensees, which we estimate will require approximately \$2.0 million to complete over the next two years. This will require future financing, in addition to any proceeds raised in this Offering.</p>
Canine Joint Health	<p>The Company has conducted multiple <i>in vitro</i> inflammatory experiments, followed by two <i>in vivo</i> trials with mice, and two <i>ex vivo</i> experiments using canine hip joint tissue.</p> <p><i>Discovery Stage, pre-GMP, pre-GLP</i></p>	<p>Two additional <i>ex vivo</i> experiments are necessary to gauge effectiveness of product candidate, to be followed by two <i>in vivo</i> studies to determine dosage and tolerance, likely followed by one or more validation studies on behalf of prospective licensees. We estimate this will require approximately \$1.7 million to complete over the next two years. This will require future financing, in addition to any proceeds raised in this Offering.</p>

Human Immune Modulation	The Company has conducted <i>six in vitro</i> experiments using human immune cells attenuated by proprietary TLR4 inhibitor.	The Company has additional testing planned, beginning with repeated <i>in vitro</i> testing of different dosages and purities.
Algal biomass for human consumption	The Company has established self-affirmed GRAS status (12 November 2018). No clinical testing is required for commercialization.	Commercial launch is in process. Product can be marketed immediately. Additional studies are planned to be conducted to expand the allowable daily intake (ADI) and obtain an FDA No Objection letter. We estimate that the additional studies will require approximately \$600,000, and an additional \$530,000 for inoculum production and cell banking.
Algal biomass for animal feed	The product is covered as a feed material under an existing category for dried algal biomass listed in the EU Feed Materials Catalogue No clinical testing is required for commercialization in the EU.	Commercial launch pending regulatory approval in the EU. We estimate this will require approximately \$400,000, which includes EU compliance costs.
Biomass for supporting skin health / anti-aging	The Company is researching and designing several investigations to establish definitive support for the mechanism of action associated with skin health / anti-aging . Support for the indication is a prerequisite to the human new dietary ingredient (NDI) application. The Company has evaluated algal biomass and algal supernatant samples for the presence of TLR4 inhibitor.	The Company is planning additional studies to support skin health/anti-aging. This will require future financing, in addition to any proceeds raised in this Offering. Pending the outcome of these tests, we expect to notify the Food and Drug Administration about these ingredients and our intent to market according to Section 413(d) of the FD&C Act, 21 U.S.C. 350b(d).
Animal functional feed ingredient	Multiple product configurations are being evaluated in studies designed to validate efficacy. The regulatory pathway required will be dictated by the product configuration(s) selected for commercial development and the associated claims to be made. Potential regulatory pathways include GRAS per FDA guidance, INAD/NADA through the FDA's CVM, or approval as an immune modulating product through the USDA's CVB.	Species-specific <i>in vivo</i> safety studies will be performed for each product configuration to be commercialized. Formal product stability studies under ambient and accelerated conditions will also be performed. The GRAS compliance effort is budgeted at \$450,000.

Competition and Functional Equivalents

Biotech

Our industries are all very highly competitive and subject to rapid and significant innovation and change. In addition to companies cultivating and creating homeopathic and natural remedies, our potential competitors and functional equivalents include large pharmaceutical and biopharmaceutical companies, specialty pharmaceutical and generic drug companies, academic institutions, government agencies and research institutions. Key competitive factors affecting our products' commercial success will include efficacy, safety, tolerability, reliability and price.

Poultry Gut Health: Conventional poultry production may include both Ionophores and other anticoccidial compounds, some of which are produced by HuvePharma, Elanco, Zoetis, and Phibro, among others. No Antibiotics Ever (NAE) poultry production, relies on effective and economically sound alternatives, such as vaccines and antimicrobial chemicals, as well as product candidates offered by ZIVO.

Bovine Mastitis: Branded antibiotic solutions include ToDay™ and Masti-Clear; homeopathic solutions include Amoxi-Mast™; topical and salve solutions include Germicidal teat dips, Fight Bac™ teat disinfectant spray, and Sterosol™ Pre/Post Teat Dip. Vaccine and antimicrobial solutions include Lysigin and Spectramast LC™.

Canine Joint Health: The global veterinary pain management drugs market is segmented into opioids, agonists, Local Anesthetics, NSAIDs (Non-steroidal Anti-Inflammatory Drugs), Disease-modifying Osteoarthritis Drugs (DMOAD) and others. The key players of the global veterinary pain management drugs market are Boehringer Ingelheim, Zoetis, Inc., Merck Animal Health, Elanco, Bayer AG, Vetoquinol S.A., Ceva Sante Animale, Virbac Group, Norbrook Laboratories Ltd, and Dechra Pharmaceuticals.

Human Immune Modulation: Several companies have TLR4 inhibitors currently in development. Eritoran (Eisai Research Institute of Boston, Andover, MA) and Resatorvid (TAK-242; Takeda Pharmaceutical Company) appear to be the lead candidates. Their mechanism of action (MOA) is cited as inhibition of the production of lipopolysaccharide (LPS)-induced inflammatory mediators by binding to the intracellular domain of TLR4. Eritoran has reached the clinical trial stage.

Agtech:

Human Food Ingredient: We believe that our primary competition will come from innovators in food technology such as DSM, Cognis, ConAgra, Cargill and Nestle, each of which has active M&A efforts, a large scientific staff and a generous R&D budget to develop supplements and ingredients for a wide range of applications.

Skin Health & Anti-Aging: There are a multitude of dietary supplements marketed for skin health and/or anti-aging applications, including premium multi-collagen peptides capsules, Well Roots Biotin Rich Plus Collagen, Heliocare Skin Care Dietary Supplement, CoQ10 Supplement, Vitamin C, Peptan®, Verisol®, and Pure Gold Collagen®.

Aquaculture: Competitors in this area include Grobest, Biomar, Aller, Aqua and Ridley.

Joint/Exertion Recovery: Joint health and post-exertion recovery application is a rapidly growing segment within the nutraceutical and function food spaces, with substantial crossover. That crossover also extends into medicinal and therapeutic sectors, where a blend of regulated products such as anti-inflammatories and nutritional products are integrated into a standard of care, along with hydrotherapy, physical therapy and related therapies.

Material Agreements

Zoetis Collaboration/Option Agreement

On December 20, 2013, the Company entered into a collaboration, confidentiality and option agreement with Zoetis (as amended from time to time, the "Zoetis Agreement"), formerly Pfizer Animal Health, and the world's largest animal health company, pursuant to which the Company is conducting bovine mastitis research. Pursuant to the Zoetis Agreement, the Company is conducting a validation under the supervision of Zoetis principals, the results of which will form the basis for an evaluation by Zoetis of ZIVO's product candidates.

Under the Zoetis Agreement, the Company granted Zoetis an exclusive option to negotiate an exclusive license with the Company for Company proprietary technology, including its identified and characterized natural molecule and its synthetic fatty acid/polysaccharide complex, and derivatives/homologs/isomers thereof, and production of the same (the “Technology”). The Company is required to execute a study under the supervision of Zoetis, the results of which will be used by Zoetis to evaluate whether or not to exercise its option. Within 90 days of its receipt of results, Zoetis must notify the Company whether or not it wishes to secure an exclusive license, and the negotiation of such license and payment terms will be made at that time.

The Zoetis Agreement has been extended through six amendments, with the current term set to expire on September 26, 2021. As of September 30, 2020, the Company is in the last phase of its bovine mastitis research program, including identification and structural analysis of bioactive compounds. Upon delivery of program results, Zoetis has ninety days to either offer an option payment, enter into a licensing agreement, acquire the IP or, if Zoetis does none of the foregoing, ZIVO has the right to approach other pharmaceutical companies.

NutriQuest Collaborative Marketing Agreement

In April 2017, the Company entered into a limited license agreement with animal nutrition innovator NutriQuest (the “NutriQuest Agreement”), which holds feed formulation contracts with Tyson, Purdue, Smithfield and other large poultry and pork processors around the world. Poultry feed testing has shown that the Company’s proprietary algal strain may be a natural immune modulator that may enter the market as a natural products or phytogetic feed ingredient, providing the No Antibiotics Ever (“NAE”) producers with a non-medicated feed alternative.

Under the NutriQuest Agreement, ZIVO granted to NutriQuest a limited, exclusive license to market, distribute sell and collect the sales proceeds in all ZIVO’s nutrition, feed additive and supplementation applications naturally-derived algal biomass and extraction products (collectively the “Products”) for oral administration in poultry and swine. The Products will be sold under the NutriQuest brand, with logos and packaging chosen by NutriQuest, with NutriQuest marketing, distributing and collecting revenues from sales of the Products. The parties will equally share the gross profit.

Additionally, if ZIVO licenses its intellectual property to another party in the animal nutrition market (a “Competitive Product”), NutriQuest has the right to exercise either of the following two options:

- **Market Adjustment Option:** ZIVO shall pay NutriQuest a market adjustment that is equal to 15% of the gross profit earned by ZIVO on the Competitive Product; and
- **Put Option:** NutriQuest has an option to terminate the NutriQuest Agreement and require ZIVO to pay NutriQuest a termination fee equal to three times NutriQuest’s 50% portion of the highest annualized gross profit achieved by NutriQuest in any 12 consecutive month period since inception of sales pursuant to the NutriQuest Agreement.

NutriChipz Supply Agreement

In June 2018, ZIVO entered into an exclusive U.S.-only supply agreement with NutriChipz (the “NutriChipz Agreement”), which provides an exclusive license to NutriChipz to supply our algae as an ingredient in chips and crisps. Under the NutriChipz Agreement, Nutrichipz will pay ZIVO an amount equal to 130% of the direct cost of ZIVO algal biomass at a US port of entry; provided, however, that such cost shall not exceed \$15,000 per metric ton.

The NutriChipz Agreement has a term of five years, subject to up to two additional two-year terms at the election of NutriChipz. However, if at any point after the date that is 12 months following the first delivery by ZIVO of two tons of its product to Nutrichipz at an average price per ton of no more than \$8,000, Nutrichipz fails to purchase at monthly cumulative average of at least 10 tons of product, then ZIVO will be released from the exclusivity obligations. Additionally, either party may terminate the NutriChipz Agreement if the other party breaches the Nutrichipz Agreement, and does not cure such breach within 90 days, or upon certain insolvency, bankruptcy events of the other party.

Intellectual Property

Patents and Proprietary Rights

ZIVO Algal Products & Derivatives

We have rights in certain patent applications and trademarks. With respect to patents and trademarks, we have secured patent and federal trademark registrations in the USPTO as described below:

- U.S. Patent No. 7,807,622 issued October 5, 2010, relates to our proprietary complex algal culture. The title of the patent is: "Composition and use of phyto-percolate for treatment of disease." This invention relates generally to a method of preparation of a phyto-percolate that is derived from fresh water mixture including algae. The invention further relates to the potential use of the phyto-percolate in a variety of disease states. This patent was filed on November 30, 2006 and has a term of 20 years from the earliest claimed filing date.
- U. S. Patent No. 8,586,053 issued November 19, 2013, relates to our proprietary algal culture. The title of the patent is: "Composition and Use of Phytopercolate for Treatment of Disease." This invention relates generally to a method of preparation of a phyto-percolate that is derived from fresh water mixture including algae. The invention further relates to the use of the phyto-percolate in a variety of disease states. The phyto-percolate is believed to contain an activity that induces the reduction of soluble and insoluble fibrin. Further, the phyto-percolate is believed to reduce oxidative stress in the body. The patent was filed on April 20, 2006 and has a term of 20 years from the earliest claimed filing date.
- U.S. Patent No. 8,791,060 issued July 29, 2014, relates to our proprietary culture. Title of the patent is the same: "Composition and Use of Phytopercolate for Treatment of disease." This invention relates generally to a method of preparation of a phyto-percolate that is derived from fresh water mixture including algae. The invention further describes proteolytic activity. The patent was filed on October 4, 2010 and has a term of 20 years from the earliest claimed filing date.
- U.S. Patent No. 9,486,005 issued November 8, 2016, relates to our proprietary culture. Title of the patent is: "Agents and Mechanisms for Treating Hypercholesterolemia." This invention relates generally to a method of treating hypercholesterolemia in mammals, by administering an effective amount of microbial fermentation product and regulating genes involved in lipoprotein metabolism.
- U.S. Patent No. 10,161,928, issued December 25, 2018, relates to a panel for monitoring levels of biomarkers. Title of the patent is: "Wellness Panel." This invention relates generally to an assay having at least one inflammation monitoring test, at least one oxidative stress monitoring test, and at least one antioxidant activity monitoring test. A method of monitoring an individual's health, by collecting a sample from the individual applying the sample to an assay panel performing at least one inflammation monitoring test, at least one oxidative stress monitoring test, and at least one antioxidant activity monitoring test in the panel, and determining levels of biomarkers related to inflammation, oxidative stress, and antioxidant activity and therefore providing information regarding the individual's relative health and/or risk of developing one or more disease.
- U.S. Patent No. 10,166,270, issued January 1, 2019 relates to disclosing a composition and method for effecting various cytokines and NF-KB. Title of the patent is: "Composition and Method for Affecting Cytokines and NF-KB." This invention relates generally to administering an effective amount of a phyto-percolate composition to an individual. In various exemplary embodiments, the composition is claimed to be useful for the effective treatment of inflammation, cancer, and/or various infections including HIV by regulation of various interleukins, such as IL-10 and IL-2, and of transcription factors including NF-KB.
- U.S. Patent No. 10,232,028, issued March 19, 2019 relates to isolates and fractions from a phyto-percolate and methods for affecting various cytokines by administering an effective amount of one or more of said isolates or fractions to an animal. In various exemplary embodiments, the isolates are useful for the treatment of bovine, canine and swine infection or inflammation, including bovine mastitis, by regulation of TNF-a, lactoferrin, INF-y, IL-B, serum amyloid-A (SAA), IL-6 and/or B-de-fensin associated with infection or an immune response generally.
- U.S. Patent 10,765,732, issued September 8, 2020, title: Compounds and Methods for Affecting Cytokines. relates isolates and fractions from a phyto-percolate and methods for affecting various cytokines by administering an effective amount of one or more of said isolates or fractions to an animal. In various exemplary embodiments, the isolates are useful for the treatment of bovine, canine and swine infection or inflammation, including bovine mastitis.

We also have allowed pending trademark applications for “KALGAE™.” 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 an assumed name of “WellMetrix” filed under the current “WellMetris” corporate identification filed in the State of Michigan, and secured an ICANN domain of the same spelling in late 2017.

The following patent filings are pertinent to the operation of the ZIVO business:

Title	Country	Patent/Application Number	Status/Description
Agents and Mechanisms for Treating Hypercholesterolemia		Issued 9,486,005 November 8, 2016	This invention relates generally to a method to modify cholesterol balance in humans and animals
Agents and Mechanisms for Treating Hypercholesterolemia	Europe	SN11745434.8	Certificate of Grant received
Agents and Mechanisms for Treating Hypercholesterolemia	Canada	2,827,401	Undergoing prosecution
Agents and Mechanisms for Treating Hypercholesterolemia	US Div	SN 15/330,830	Notice of Allowance received
Algal Feed Ingredient for Controlling Coccidiosis and Necrotic Enteritis in Poultry	US	PCTUS19/67600	Undergoing prosecution
Algamist (trademark name)	US	88/865,726	Filed
Algamists (trademark name)	US	88/865,741	Filed
Composition and Method For Affecting Cytokines and NF-Kb		10,166,270 Issued: January 1, 2019	This invention relates to a panel for monitoring levels of biomarkers.
Composition and Method For Affecting Cytokines and NF-Kb	Brazil	BR 11 2012 0116789	Under prosecution
Composition and use of phyto-percolate for treatment of disease	US	7,807,622 Issued: October 5, 2010	This invention relates generally to a method of preparation of a phyto-percolate that is derived from freshwater mixture including algae. The phyto-percolate is believed to contain compounds having proteolytic activity. The invention further relates to the use of the phyto-percolate
Composition and use of phyto-percolate for treatment of disease	US	8,586,053 Issued: November 19, 2013	This invention relates generally to a method of preparation of a phyto-percolate that is derived from freshwater mixture including algae. The invention further relates to the use of the phyto-percolate in a variety of disease states. The phyto-percolate is believed to contain an activity that induces the reduction of soluble and insoluble fibrin. Further, the phyto-percolate is believed to reduce oxidative stress in the body.
Composition and use of phyto-percolate for treatment of disease	US	8,791,060 Issued: July 29, 2014	This invention relates generally to a method of preparation of a phyto-percolate that is derived from freshwater mixture including algae. The phyto-percolate is believed to contain compounds having proteolytic activity. The invention further relates to the use of the phyto-percolate
Composition and Use of Phytopercolate For Treatment of Disease	Canada	2,631,773	Under prosecution

Compounds and Methods for Affecting Cytokines		10,232,028 Issued March 19, 2019	This invention relates to isolates and fractions from a phyto-percolate and methods for affecting various cytokines
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Non-Prov	15/913,712	Under Prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Brazil	BR112019018600	Under prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Mexico	MX/a/2019/010670	Under prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Peru	1820-2019	Under prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	China	To be issued	Under prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Europe	18763110.5	Under prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Taiwan	107107720	Under Prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Thailand	190105502	Under Prosecution
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal Biomass	Hong Kong	620200009616.7	Under prosecution
Immunoalexin (trademark name)	US	1b86/671,322	Filed
Kalgae (trademark name)	US	87/961,009	Filed
Kalgae (trademark name)	Taiwan	107080545	Filed
Kalgae (trademark name)	Madrid	0445321	Filed
Kalgae (trademark name)	Peru	777751	Filed
Kalgae (trademark name)	Canada	1,935,731	Filed
Kalgae (trademark name)	China		Pursuant to Madrid Protocol" filing which allows an applicant to file a single trademark application and designate certain jurisdictions where they want the registration to be in force. File number is same as Madrid for China.
Kalgae (trademark name)	India		Pursuant to Madrid Protocol" filing which allows an applicant to file a single trademark application and designate certain jurisdictions where they want the registration to be in force. File number is same as Madrid for China.

Kalgae (trademark name)	Japan		Pursuant to Madrid Protocol” filing which allows an applicant to file a single trademark application and designate certain jurisdictions where they want the registration to be in force. File number is same as Madrid for China.
Methods of modulating immune response and inflammatory response via administration of algal biomass	Brazil	1120170175991	Under Prosecution
Methods of modulating immune response and inflammatory response via administration of algal biomass	US	15/550,749	Under Prosecution
Methods of modulating immune response and inflammatory response via administration of algal biomass	Canada	3,011,687	Under Prosecution
Methods of modulating immune response and inflammatory response via administration of algal biomass	Europe	16752918.9	Under Prosecution
Methods of modulating immune response and inflammatory response via administration of algal biomass	Hong Kong	18108238.5	Under Prosecution
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	US	15/998,619	Under Prosecution
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	Canada	3,014,897	Notice of Allowance received
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	Europe	17753729.7	Under Prosecution
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	Hong Kong	19,125,173	Under Prosecution
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	Mexico	MX/a/2018/009818	Under Prosecution
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	US	PCT/US17/17906	Under Prosecution
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	China	201780023561.5	Under Prosecution
Nutritional Support for Humans Via Administration of an Algal Derived Supplement	Taiwan	107104744	Under Prosecution
Use Of TLR4 Inhibitor In The Treatment Of Coccidiosis	Prov	63/024,886	Under Prosecution
ZIVO		86/384,137	Filed
ZIVO	China	Report Pending	

ZIVO Bioscience	China	86/340,059	Filed
ZIVO Bioscience	China	Report Pending	

Protection of our intellectual property is a strategic priority for our business. We rely on a combination of patents, trademarks, copyrights, trade secrets as well as nondisclosure and assignment of invention agreements, material transfer agreements, confidentiality agreements and other measures to protect our intellectual property and other proprietary rights.

Patents

The term of individual patents and patent applications will depend upon the legal term of the patents in the countries in which they are obtained. In most countries, the patent term is 20 years from the date of filing of the patent application (or parent application, if applicable). For example, if an international Patent Cooperation Treaty (“PCT”) application is filed, any patent issuing from the PCT application in a specific country expires 20 years from the filing date of the PCT application. In the United States, using the Paris Convention route, if a patent was in force on June 8, 1995, or issued on an application that was filed before June 8, 1995, that patent will have a term that is the greater of 20 years from the filing date, or 17 years from the date of issue.

Under the Hatch-Waxman Act, the term of a patent that covers an FDA-approved drug, biological product may also be eligible for patent term extension (“PTE”). PTE permits restoration of a portion of the patent term of a U.S. patent as compensation for the patent term lost during product development and the FDA regulatory review process if approval of the application for the product is the first permitted commercial marketing of a drug or biological product containing the active ingredient. The patent term restoration period is generally one-half the time between the effective date of an investigational new drug (IND) and the submission date of a biological license application (“BLA”) plus the time between the submission date of a BLA and the approval of that application. The Hatch-Waxman Act permits a PTE for only one patent applicable to an approved drug, and the maximum period of restoration is five years beyond the expiration of the patent. A PTE cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, and a patent can only be extended once, and thus, even if a single patent is applicable to multiple products, it can only be extended based on one product. Similar provisions may be available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug. When possible, depending upon the length of clinical trials and other factors involved in the filing of a BLA, we expect to apply for PTEs for patents covering our therapeutic candidates and products and their methods of use.

Trade Secrets

We also rely on trade secrets, technical know-how and continuing innovation to develop and maintain our competitive position. We seek to protect such intellectual property and proprietary information by generally requiring our employees, consultants, contractors, scientific collaborators and other advisors to execute non-disclosure and assignment of invention agreements upon the commencement of their employment or engagement as the case may be. Our agreements with our employees prohibit them from providing us with any intellectual property or proprietary information of third parties. We also generally require confidentiality agreements or material transfer agreements with third parties that receive or have access to our confidential information, data or other materials. Notwithstanding the foregoing, there can be no assurance that our employees and third parties that have access to our confidential proprietary information will abide by the terms of their agreements. Despite the measures that we take to protect our intellectual property and confidential information, unauthorized third parties may copy aspects of our products or obtain and use our proprietary information.

Government Regulation

Overview

Biotech

As a discovery-stage licensor, we do not intend to fund and oversee the final regulatory approvals and commercialization processes of our product candidates, as we expect these to be borne by the licensee in all cases.

Agtech

As the licensor of food technology, and producer of culture inoculum for cultivation, ZIVO and its licensed growers must furnish to customers algal biomass that is compliant with all food and feed standards and FDA/CVM/USDA/AAFCO regulations.

In all cases, the compliance efforts involve GRAS affirmation and an FDA “No Objection” letter for each target specie. ZIVO has already obtained GRAS affirmation for human use.

The Company intends to monetize intellectual property via licensing and biomass sales to feed and food marketers, dietary supplement makers and pharmaceutical companies. In so doing, each individual application requires testing and validation of safety and efficacy, per established regulation. Market verticals and compliance standards are closely associated. It stands to reason that entering a particular vertical is based on the economic opportunity, tempered by the cost and complexity of complying with all relevant standards.

Feed Ingredients – Livestock and Poultry

Feed ingredients in the U.S. are nominally controlled by the AAFCO, under a working memorandum with the FDA, which provides enforcement and litigation on behalf of AAFCO. Recent actions by the FDA and CVM have complicated the compliance process, and in February 2018, Company principals engaged the Tox Strategies as compliance consultants for poultry GRAS self-affirmation.

Because animal products make up a critical part of the food supply, anything that goes into dairy cows, beef cattle, pork or poultry is heavily regulated. In this instance, the Company intends to sell its dried algal biomass or extracts as a feed ingredient. It is incumbent upon the Company to prove that its algal culture is safe to consume by humans and provides nutritional value to the animal. No claims can be made regarding any of its beneficial properties beyond digestibility, nutrition and productivity.

In March 2019, ZIVO retained Pen & Tec, an animal feed compliance consultancy based in Portugal to assist in EU product registration. ZIVO dried algal biomass has since been classified as a feed material in the EU, requiring no new research or study, but a rather time-consuming process of product registration and importation protocols which is still in process as of September 30, 2020.

Feed Ingredients & Supplements – Companion Animals

Although state AAFCO officials still regulate companion animal feeds, treats and supplements, the supervision and standards are largely handled by the FDA and the CVM on a national level. However, the standards are not as restrictive as livestock feed. We currently do not have approval to sell companion animal feeds and are in the process of developing the specie-specific safety and health data required to do so. Companion animal products are aimed primarily at dogs and horses. We believe that a single safety/tox study and a separate dose/benefit study per animal applications will be sufficient. As with humans, we would seek to obtain a GRAS affirmation.

To clarify, an “application” is a single ingredient in a single formulation and a single claim for a single animal species. Therefore, a dietary supplement with the Company’s active compound, intended as a joint health supplement for adult dogs, constitutes a single application. That single application requires its own studies before any dog treat manufacturer would consider licensing or purchasing the Company’s active compounds. Any change to the claims (more energy, shinier coat, etc.) or the target specie requires a new study. This is the current state of regulation, and it holds true for all human and animal applications.

Food Ingredient – Human

The food ingredient industry is regulated by several federal agencies. Anything that is introduced into food or beverages, whether to prevent spoilage, optimize processing or to enhance its nutritive value, must meet standards set and enforced rigorously by the FDA and USDA.

GRAS

The FDA requires that ingredients introduced into human foods and beverages are safe and are manufactured in a consistent manner that guarantees consumer safety. The standard that the Company must meet for food ingredient safety is GRAS. The Company opted to conduct a self-certification of its algal biomass and extracts, to be followed by an FDA “No Objection” letter and formal product registration.

In 2016, ZIVO contracted the Burdock Group to assist the Company in the compliance process, and to help with the process with the FDA. Further, the Company retained the New York law firm of Ullman Shapiro Ullman LLP, now part of Rivkin-Radler LLP, to advise in the compliance process.

ZIVO obtained GRAS affirmed status for its dried algal biomass in November 2018, which allowed for immediate sale of biomass in the U.S. market as a food or beverage ingredient at an ADI of 10 grams. However, ZIVO principals are aiming for a much higher threshold, approximately 50 times the average ADI for all other microalgae.

This will require a human tolerance study of 45 days’ duration and result in a new GRAS self-affirmation at the higher ADI. At that point, ZIVO principals will apply for an FDA “No Objection” letter, product registration as a food/beverage ingredient and immediately begin the NDI application process.

Current Good Manufacturing Process

The other standard that must be met is current Good Manufacturing Process (“cGMP”) before any ingredient can be introduced into foods and beverages. This requires a formal notification to the FDA in parallel with GRAS or NDI applications and usually invites a visit from the FDA to review the manufacturing/production process. The Company must present process statements and documentation that follow cGMP standards to ensure the consistency of its product.

Further, the FDA also requires federal licensing of all food and supplement processing facilities, in addition to any state and local licensing and inspections, should the product be produced in the U.S. If produced overseas, the FDA, USDA and U.S. Customs require that each grower is enrolled in the Foreign Supplier Verification Program, a cost to be borne by the grower and ZIVO.

Dietary Supplements

Dietary supplements, which include vitamins, minerals, nutritive substances and natural products that are standalone products (“nutraceuticals”) fall under the jurisdiction of the FDA and must comply with the Dietary Supplement Health Education Act (“DSHEA”) legislation passed in 1994 and updated several times since, along with the Food Safety Modernization Act of 2011.

NDI Application

As human dietary supplement applications are being readied for market launch, the Company is required to file an NDI application. As part of the application process, ZIVO must conduct at least one human study, and possibly two. These studies can run concurrently but should not be conducted by the same clinical research organization. To date, ZIVO has not run these studies. One such study is the dose tolerance study used to amend the GRAS filing, and can be repurposed for this application. Therefore, Company principals expect that once acceptable algal biomass is available from its contract growers, the NDI approvals should not exceed 120 days’ duration after the completed studies and application are filed.

Structure/Function Claims

The Company can go to market (once a single study has been completed and GMP protocols are in evidence) with simple structure/function claims regarding the ability to maintain a healthy immune response or a beneficial anti-inflammatory response. This is the most basic of FDA standards and essentially means that as long as GMP standards are met, a study has been conducted and that in-process toxicology reports are available, the Company is able to market its product.

The market reality is that nutraceutical and supplement makers won’t take on the product unless its chemical makeup is generally described, the plant or animal is properly classified (in this case, algae) and the manufacturing process is free of health hazards and that GMP protocols are observed, all of which the Company intends to meet or exceed.

USP Certification

The DSHEA regulations also require that a safe dosage is established for any vitamin, mineral or dietary supplement, whether it is natural or synthetic in composition. The United States Pharmacopeia (“USP”) is the official pharmacopeia of the United States. USP establishes written (documentary) and physical (reference) standards for medicines, food ingredients, dietary supplement products and ingredients.

These standards are used by regulatory agencies and manufacturers to help to ensure that these products are of the appropriate identity, as well as strength, quality, purity, and consistency. The Company will endeavor to adhere to the most basic USP standard in order to maintain speed to market. It or its licensees will then consider the USP Verified products designation.

Legal Proceedings

The Company may be subject to various claims, complaints, and legal actions that arise from time to time in the normal course of business. Management does not believe that the Company is party to any currently pending material legal proceedings as of December 4, 2020. There can be no assurance that existing or future legal proceedings arising in the ordinary course of business or otherwise will not have a material adverse effect on the Company’s business, financial position, results of operations, or cash flows.

Employees

As of September 30, 2020 we had eight full-time employees, consisting of clinical development, product development, regulatory, manufacturing, quality, finance, administration and managers. We also regularly use independent contractors across the organization. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

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 9,000,000 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. (“ZIVO”). On October 30, 2014, the Financial Industry Regulatory Authority (“FINRA”) approved the name ZIVO Bioscience, Inc. for trading purposes and the symbol change to ZIVO effective November 10, 2014.

PROPERTIES

Our principal executive office is located at 2804 Orchard Lake Rd., Suite 202, Keego Harbor, MI 48320 in a facility we lease encompassing 2,150 square feet. We believe that our existing facilities are adequate for our current needs. If we determine that additional or new facilities are needed in the future, we believe that sufficient options would be available to us on commercially reasonable terms. We also lease the following: an office (250 square feet) for our CEO at 7 West Square Lake Road, Bloomfield Hills, MI 48302 and a laboratory office (817 at square feet) at 46701 Commerce Center Drive, Plymouth, MI 48170.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and related notes included elsewhere in this prospectus. This discussion contains certain forward-looking statements that involve risk and uncertainties. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those set forth under the section titled "Risk Factors," and other documents we file with the Securities and Exchange Commission. Historical results are not necessarily indicative of future results.

Special Note Regarding Smaller Reporting Company Status

As a result of having been a "smaller reporting company" (as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended), we are allowed and have elected to omit certain information, including three years of year-to-year comparisons and tabular disclosure of contractual obligations, from this Management's Discussion and Analysis of Financial Condition and Results of Operations; however, we have provided all information for the periods presented that we believe to be appropriate and necessary.

Overview

We have put in place a business model in which we may derive future income from licensing and selling natural bioactive ingredients that may be derived from or are initially based on the algae cultures. We expect that these planned new products will likely be sold to much larger, better-financed animal, food, dietary supplement and medical food manufacturers. The anticipated income streams are to be generated from a) royalties and advances for licensed natural bioactive ingredients, and b) a toll on bulk sales of such ingredients. These bulk ingredients will likely be made by contracted ingredient manufacturers and then sold by us to animal food, dietary supplement and medical food processors and/or name-brand marketers. Further, we expect to license our bioactive molecules as lead compounds or templates for synthetic variants intended for therapeutic applications.

For our Wellmetrix, LLC subsidiary ("Wellmetrix") the Board and management agreed to halt active product development and instead focus on prospective out-licensing of the existing intellectual property, consisting of a patent and several patents pending. An ongoing commitment to patent prosecution and maintenance of the existing patent has been approved by the Board.

Results of Operations

Comparison of Nine Months Ended September 30, 2020 and 2019

The following table summarizes our results of operations for the nine months ended September 30, 2020 and 2019:

	Nine months ended September 30,	
	2020	2019
Revenue:	\$ 20,000	\$ -
Total revenue	20,000	-
Costs and expenses:		
Cost of goods sold		
Research and development	3,307,716	1,839,547
Selling, general and administrative	3,512,947	2,739,551
Total costs and expenses	6,820,663	4,579,098
Operating loss	(6,800,663)	(4,579,098)
Other income (expense):		
Interest income	-	-
Other income (expense)	(411,906)	(2,799,172)
Total other income, net	(411,906)	(2,799,172)
Net loss	\$ (7,212,568)	\$ (7,378,270)

Net Sales

ZIVO had no sales during the nine months ended September 30, 2020 and 2019.

For Wellmetrix, we had \$20,000 and \$-0- of service revenue during the nine months ended September 30, 2020 and 2019, respectively. The Wellmetrix service revenue related to a study design for a pre-clinical trial.

Cost of Sales.

We had no cost of sales during the nine months ended September 30, 2020 and 2019.

General and Administrative Expenses

General and administrative expenses were \$1,526,530 for the nine months ended September 30, 2020, as compared to \$1,062,423 for the comparable prior period. The approximate \$464,000 increase in general and administrative expense during 2020 is due primarily to the following: an increase of \$581,000 in salary expense, of which \$386,000 was due to a stock options issued to employees, a non-cash expense, an increase in insurance expense of \$39,000, an increase in rent expense of \$20,000, offset by a decrease in recruiting expenses of \$107,000, a decrease in travel expense of \$56,000 and a decrease in public communication expenses of \$13,000.

Professional and Consulting Expenses

Professional and consulting expenses were \$1,986,417 for the nine months ended September 30, 2020, as compared to \$1,677,128 for the comparable prior period. The approximate \$309,000 increase in professional and consulting expense during 2020 is mainly due to the following: an increase in Director Fees of \$1,050,000 (the non-cash portion of Director Fees in 2020 was \$1,249,000 for the issuance of 11,500,000 warrants for the purchase of common stock compared the 2019 issuance of 2,500,000 warrants for the purchase of common stock valued at to \$193,000, a difference of \$1,056,000) an increase of \$34,000 in accounting fees, an increase of \$27,000 in legal fees, offset by a decrease of \$692,000 in financial consulting (of which a net non-cash value is \$729,000 represented by a value of \$31,000 relating to warrants issued in 2020 for 300,000 shares of common stock offset by a value of \$760,000 relating to warrants issued in 2019 for 8 million shares of common stock), a decrease of \$102,000 in investment banking fees, a decrease of \$5,000 in investor relations fees and a decrease in filing and listing fees of \$3,000.

Research and Development Expenses

For the nine months ended September 30, 2020, we incurred \$3,307,716 on research and development expenses, as compared to \$1,839,547 for the comparable period in 2019.

Of these expenses, approximately \$3,167,000 and \$1,771,000 for the nine months ended September 30, 2020 and 2019, respectively, are costs associated with research relating to Zivo. Of these costs in 2020, \$1,492,000 are a non-cash charge relating to Stock Options granted to employees involved with Research and Development. Subject to the availability of funding, our research and development costs will grow as we work to complete the research in the development of natural bioactive compounds for use as dietary supplements and food ingredients, as well as biologics for medicinal and pharmaceutical applications in humans and animals. The Company's scientific efforts are focused on the metabolic aspects of oxidation and inflammation, with a parallel program to validate and license products for healthy immune response. The decrease of \$96,000 of cash expenses from the prior period is due to the reduced availability of cash during this period.

With respect to our Wellmetrix, LLC subsidiary, we incurred \$141,000 and \$68,000 in research and development expenses for the nine months ended September 30, 2020 and 2019, respectively. The R&D effort to date has centered on optimizing dry chemistry, developing lower-cost alternatives for the proprietary analyzer device, negotiating and collaborating with offshore manufacturers and assembling the FDA pre-submission package for product classification and approval. The increase of \$72,000 from the prior period is due to reinitiating certain limited projects for research and development. As noted above, the Company has halted active product development and instead is focusing on prospective out-licensing of the existing intellectual property, consisting of a patent and several patents pending.

Comparison of Years Ended December 31, 2019 and 2018

The following table summarizes our results of operations for the years ended December 31, 2019 and 2018 (in thousands):

	Years ended December 31,	
	2019	2018
Revenue:	\$ -	\$ -
Total revenue	-	-
Costs and expenses:		
Cost of goods sold	-	-
Research and development	2,307,033	2,814,991
Selling, general and administrative	6,045,317	3,315,652
Total costs and expenses	8,352,350	6,130,643
Operating loss	(8,352,350)	(6,130,643)
Other income (expense):		
Interest income	-	-
Other income (expense)	(3,157,816)	(8,504,724)
Total other income, net		
Net loss	\$ (11,510,166)	\$ (14,635,367)

Sales

We had no sales for the years ended December 31, 2019 and 2018.

Cost of Sales

The Company had no Costs of Sales for the years ended December 31, 2019 and 2018.

Selling Expenses

The Company had no Selling Expenses for the years ended December 31, 2019 and 2018.

General and Administrative Expenses

General and administrative expenses increased approximately \$2,723,000 to \$4,076,000 in 2019 compared to \$1,353,000 in 2018. Of this \$2,723,000 increase, approximately \$2,524,000 related to an increase in non-cash expenses as noted below, leaving an increase in cash expenses of approximately \$199,000. General and administrative expenses increased in the following areas: an increase in salaries of \$2,584,000, of which is \$2,636,000 is due to an award in 2019 of 29 million stock options to the CEO (a non-cash expense), an increase in salary expenses of \$75,000, offset by awards in 2018 of stock warrants to the Vice President – Operations valued at \$121,000 (a non-cash expense) and a decrease of the value of stock warrants issued to the CFO of \$6,000 (a non-cash expense), an increase in recruiting expense of \$66,000 for the Vice President of Global Operations, an increase of \$55,000 in insurance expense, an increase in Wellmetrix operating expenses of \$42,000 mainly relating to a recruiting expense for the Executive Vice-President of Operations and Product Development, an increase of \$25,000 in travel expenses and an increase of \$15,000 of office expenses, offset by a reduction of \$64,000 web-site development and public relations. Our increase in related cash expenses of general and administrative expenses was due to increased activity.

Professional Fees and Consulting Expense

Professional fees and consulting expense increased approximately \$7,000 to \$1,969,000 in 2019 compared to \$1,962,000 in 2018. Professional fees and consulting expense increased in 2019 due to the following: an increase of \$931,000 in the use of financial consultants (of the total expense of \$1,011,000 in 2019 related to these activities, \$737,000 was a non-cash expense in the forms warrants issued for services rendered) and an increase in general legal fees of \$165,000 offset by a decrease of \$798,000 in the use of an investment banking firm and investor relations (of which \$620,000 of the expense in 2018 was in the form of warrants - a non-cash expense), a decrease in Board of Director Fees of \$191,000 (the decrease was in the value of non-cash expense in the form of 2,500,000 Common Stock warrants valued at \$192,614 in 2019 compared to \$384,065 in 2018 issued for services rendered), a decrease in patent legal fees of \$85,000, a decrease of accounting fees of \$14,000 and a decrease in listing and service fees of \$1,000.

Research and Development Expenses

Research and development expenses decreased approximately \$508,000 to \$2,307,000 in 2019 compared to \$2,815,000 in 2018 for the comparable period.

Of these expenses, approximately \$2,206,000 and \$2,798,000 for the years ended December 31, 2019 and 2018, respectively, are costs associated with external research relating to ZIVO. Subject to the availability of funding, our R&D costs will grow as we work to complete the research in the development of natural bioactive compounds for use as dietary supplements and food ingredients, as well as biologics for medicinal and pharmaceutical applications in humans and animals. The Company's scientific efforts are focused on the metabolic aspects of oxidation and inflammation, with a parallel program to validate and license products for healthy immune response. The decrease of \$508,000 from the prior period can be attributed to a decrease in available funding. We expect external R&D to increase in 2020 as we pursue additional external trials, subject to the availability of sufficient funding, which we do not currently have.

With respect to Wellmetrix, we incurred approximately \$101,000 and \$17,000 in R&D expenses for the year ended December 31, 2019 and 2018, respectively. The R&D effort through December 31, 2019 has centered on optimizing dry chemistry, developing lower-cost alternatives for the proprietary analyzer device, negotiating and collaborating with offshore manufacturers and assembling the FDA pre-submission package for product classification and approval. The increase of \$84,000 from the prior period is due to prioritization of Wellmetrix research.

Other Income (Expenses)

During the year ended December 31, 2019, we recorded approximately \$375,000 relating to amortization of debt discount as compared to \$903,000 for the year ended December 31, 2018, a decrease \$528,000. The decrease is related to the funding expenses of the convertible debt and the valuation related to the debt discount calculation. The discounts are amortized on a straight-line basis through April 1, 2019.

During the year ended December 31, 2019, we recorded \$-0- in finance costs as compared to \$97,000 in 2018. The decrease of \$97,000 was due to a decrease in convertible debt funding in 2019 as compared with 2018.

During the year ended December 31, 2019, we recorded \$-0- in finance costs paid in stock and warrants as compared to \$311,000 in 2018. The increase of \$311,000 was due to a decrease in convertible debt funding in 2019 as compared to 2018.

During the year ended December 31, 2019, we recorded approximately \$2,783,000 in interest expense as compared to \$7,194,000 in 2018, a decrease of \$4,411,000. Included in interest expense is the amortization of debt issuance costs of approximately \$1,189,000 and \$5,093,000, respectively. The decrease of \$4,411,000 is due to: 1) no new funding of convertible debt in 2019, 2) the conversion of \$17,274,350 in principal and interest of Convertible Debt to HEP Investments, LLC (a related party) ("HEP" or "HEP Investments") over the course of 2019) conversion of \$311,836 of Loan Payable-Related Party and accrued interest, 4) the amortization of the remaining deferred finance costs from 2018 offset by 5) the issuance to HEP Investments a warrant to purchase 2,000,000 shares of Common Stock valued at \$165,432.

Liquidity and Capital Resources

We have incurred significant net losses each year since our inception and as of September 30, 2020, we had an accumulated deficit of approximately \$97 million. We anticipate that we will continue to incur net losses for at least the next several years.

We have funded our operations principally through the sales of equity and convertible debt securities. As of September 30, 2020, we had cash and cash equivalents of approximately \$55,000.

During the nine months ended September 30, 2020, we incurred negative cash flows from operations of \$1,686,936. As of September 30, 2020, we had a working capital deficiency of \$10,969,148 and a stockholders' deficiency of \$11,090,848. Although we recently received funding of \$900,000 from the proceeds from the sale of a License Co-Development Participation Agreement and \$265,000 from the sale of 2,650,000 shares of the Company's Common Stock through November 12, 2020, we have a near term need for additional capital.

Cash Flows from Operating Activities. During the nine months ended September 30, 2020, our operating activities used \$1,686,936 in cash, an decrease of \$1,369,027 from the comparable prior period. The approximate \$1,369,000 decrease in cash used by operating activities was primarily attributable to the following (all of which are approximated): a \$166,000 decrease in net loss, an increase in non-cash expenses of \$610,000 (an increase of stock and warrants issued for services of \$2,173,000, offset by a decrease in amortization of debt issuance costs of \$1,188,000, a decrease in amortization of bond discount of \$375,000), and \$593,000 of changes made up of an increase in deferred revenue of \$1,385,000 offset by a decrease in accrued liabilities - \$761,000, a decrease in prepaid expenses - \$20,000 and a decrease in accounts payable - \$11,000.

Cash Flows from Investing Activities. During the nine months ended September 30, 2020 and 2019, there were no investing activities.

Cash Flows from Financing Activities During the nine months ended September 30, 2020, our financing activities generated approximately \$1,396,000, a decrease of approximately \$1,286,000 from the comparable prior period. The decrease in cash provided by financing activities was due to an increase in proceeds of approximately \$580,000 from the exercise of common stock warrants, \$122,000 from the proceeds of loan payable - other, \$540,000 of proceeds from the sale of common stock warrants - License Co-Development Participation Agreements and approximately \$97,000 from proceeds of loans payable from a related party, offset by a decrease of \$2,625,000 from proceeds the sale common stock as compared to the prior period.

Although we raised a limited amount of capital during 2019 and the first nine months of 2020, we continue to experience a shortage of capital, which is materially and adversely affecting our ability to run our business. As noted above, we have been largely dependent upon external sources for funding. We have in the past had difficulty in raising capital from external sources. We are still heavily reliant upon external financing for the continuation of our R&D program.

We estimate that we would require approximately \$6.0 million in cash over the next 12 months in order to fund our basic operations, excluding our R&D initiatives. Based on this cash requirement, we have a near term need for additional funding. Historically, we have had substantial difficulty raising funds from external sources. If we are unable to raise the required capital, we will be forced to curtail our business operations, including our R&D activities. The following table shows a summary of our cash flows for the periods indicated (in thousands):

	Nine months ended September 30,	
	2020	2019
Net cash provided by (used in):		
Operating activities	\$ (1,686,936)	\$ (3,055,963)
Investing activities	-	-
Financing activities	1,396,193	2,682,500
Net decrease in cash and cash equivalents	\$ (290,743)	\$ (373,463)

Off-Balance Sheet Arrangements

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements as defined under the rules of the Securities and Exchange Commission.

Recent Accounting Pronouncements

See Note 2 of our notes to each of our consolidated financial statements as of and for the nine months ended September 30, 2020 and the year ended December 31, 2019 for information regarding recent accounting pronouncements that are of significance or potential significance to us.

Recent Events

Warrant Issuances and Exercises

In November 2020, the Company entered into an amendment to that certain Supply Chain Consulting Agreement with Aegle Partners 2 LLC. The amendment provided that Aegle Partners 2 LLC or its designee would receive 13 million warrants upon closing of a development project (instead of 18 million), in exchange for 3 million additional warrants up front, which warrants were issued to Julian Leese on November 24, 2020. Additionally, on December 1, 2020, 2.5 million warrants were exercised on a cash basis with proceeds to the Company of \$250,000.

License Co-Development Participation Agreements

From April 13, 2020 through December 4, 2020, the Company entered into sixteen (16) License Co-Development Participation Agreements (the "Participation Agreements") with certain accredited investors ("Participants") for an aggregate of \$2,825,000. The Participation Agreements provide for the issuance of warrants to such Participants, and allows the Participants to participate in the fees (the "Fees") from licensing or selling bioactive ingredients or molecules derived from ZIVO's algae cultures. Specifically, ZIVO has agreed provide to the Participants a 42.375% "Revenue Share" of all license fees generated by ZIVO from any licensee.

The Participation Agreements allow the Company the option to buy back the right, title and interest in the Revenue Share for an amount equal to the amount funded plus a forty percent (40%) premium, if the option is exercised less than 18 months following execution, or fifty percent (50%), if the option is exercised more than 18 months following execution. Pursuant to the terms nine of the ten Participation Agreements, the Company may not exercise its option until it has paid the Participants a revenue share equal to a minimum of thirty percent (30%) of the amount such Participant's total payment amount. Pursuant to the terms of the tenth Participation Agreement, the Company may not exercise its option until it has paid the Participant a revenue share equal to a minimum of one hundred-forty percent (140%) of the amount such Participant's total payment amount. Once this minimum threshold is met, the Company may exercise its option by delivering written notice to a Participant of its intent to exercise the option, along with repayment terms of the amount funded, which may be paid, in the Company's sole discretion, in one lump sum or in four (4) equal quarterly payments. If the Company does not make such quarterly payments timely for any quarter, then the Company shall pay the prorated Revenue Share amount, retroactive on the entire remaining balance owed, that would have been earned during such quarter until the default payments have been made and the payment schedule is no longer in default. See below a summary of the Participation Agreements:

Participation Agreements

Agreement #	Date of Funding	Amount Funded	Warrants		Exercise Price	Revenue Share	Minimum Payment Threshold	Buy-back Premium % pre-18 mos.	Buy-back Premium % post 18 mos.
				Term					
1	April 13, 2020	\$ 100,000	300,000	5 Years	\$ 0.12	1.500%	-	40%	40%
2	April 13, 2020	150,000	450,000	5 Years	0.12	2.250%	-	40%	40%
3	April 13, 2020	150,000	450,000	5 Years	0.12	2.250%	-	40%	40%
4	May 7, 2020	250,000	750,000	5 Years	0.12	3.750%	-	40%	40%
5	June 1, 2020	275,000	825,000	5 Years	0.11	4.125%	\$ 82,500	40%	50%
6	June 3, 2020	225,000	675,000	5 Years	0.11	3.375%	67,500	40%	50%
7	July 8, 2020	100,000	300,000	5 Years	0.12	1.500%	30,000	40%	50%
8	Aug. 24, 2020	125,000	375,000	5 Years	0.12	1.875%	37,500	40%	50%
9	Sept. 14, 2020	150,000	450,000	5 Years	0.12	2.250%	45,000	40%	50%
10	Sept.15, 2020	50,000	150,000	5 Years	0.12	0.750%	15,000	40%	50%
11	Sept.15, 2020	50,000	150,000	5 Years	0.12	0.750%	15,000	40%	50%
12	Sept.25, 2020	300,000	450,000	5 Years	0.12	4.500%	420,000	40%	50%
13	Oct. 4, 2020	100,000	300,000	5 Years	0.12	1.500%	30,000	40%	40%
14	Oct. 4, 2020	250,000	750,000	5 Years	0.12	3.750%	75,000	40%	40%
15	Oct. 8, 2020	500,000	1,500,000	5 Years	0.12	7.500%	150,000	40%	40%
16	Oct. 9, 2020	50,000	150,000	5 Years	0.12	0.750%	15,000	40%	40%
		<u>\$ 2,825,000</u>	<u>8,025,000</u>			<u>42.375%</u>	<u>\$ 982,500</u>		

DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Board of Directors

Our business affairs are managed under the direction of our board of directors, which is currently composed of five members. All of our directors other than Andrew A. Dahl are independent within the meaning of the listing standards of the Nasdaq Stock Market LLC. The following table sets forth the names, ages as of December 4, 2020, and certain other information for each of the directors with terms expiring at the 2021 Annual Meeting:

Directors and Executive Officers

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

<u>Name</u>	<u>Age</u>	<u>Positions</u>	<u>Since</u>
Andrew A. Dahl	66	President / Chief Executive Officer / Director	2011/2020
Philip M. Rice II	66	Chief Financial Officer / Former Director	2011
Christopher D. Maggiore	55	Director	2013
Nola E. Masterson	73	Director	2014
John B. Payne	72	Director	2013
Robert O. Rondeau, Jr.	55	Director	2016

Business Experience of Directors

John B. Payne, Chairman Director

Mr. Payne was appointed to serve as a director of the Company in July, 2013. Mr. Payne is the President and CEO of Compassion-First Pet Hospitals and serves as the Chairman of the Board of Directors. He founded Compassion-First in 2014 and today, the family of specialty, general practice and emergency veterinary hospitals throughout the United States is dedicated to changing the veterinary landscape and elevating patient outcomes. With 44 hospitals across 14 states, Compassion-First has more than 3,000 employees and more than 230 board-certified specialists across a wide range of medical disciplines. Mr. Payne currently serves as the Chairman of the Board for American Humane and serves as the director of ZIVO Bioscience. He is on the Board of Regents at Ross University School of Medicine and at Ross University School of Veterinary Medicine. Prior to creating Compassion-First Mr. Payne served as a member of the Global Leadership Team for Mars Pet Care. He also served as the President and CEO of Banfield Pet Hospitals and served as the President and General Manager of Bayer Healthcare's North American Animal Health Division. Mr. Payne provides the Board of Directors with valuable insight and experience in the animal care and pharmaceutical fields.

Nola E. Masterson Director

Ms. Masterson was appointed in September 2014 to serve as a director of the Company. Since 1982, she has been the chief executive officer of Science Futures, Inc., an investment and advisory firm. Ms. Masterson is currently managing member and general partner of Science Futures LLC, I and II, which are venture capital funds invested in life science funds and companies. Ms. Masterson was a Venture Partner in TVM Capital, a large Global venture firm. She was a member of the board of directors of Repros Therapeutics Inc. (sold to Allergan plc [NYSE: AGN] in January 2018) and served on the audit committee, nominating committee and the compensation committee at that company. She is an Adjunct Professor in the Management School of the University of San Francisco. Ms. Masterson was a biotechnology analyst on Wall Street, working with Drexel Burnham Lambert and Merrill Lynch, and is a co-founder and was CEO of Sequenom, Inc., a genetic analysis company located in San Diego, California and Hamburg, Germany. Ms. Masterson is the Chair Emeritus of the California Life Science Association Institute, a 501(c)(3) organization, which promotes science education, workforce development and best practices as well as entrepreneurs in the bioeconomy. Ms. Masterson began her business career at Ames Company, a division of Bayer, and spent eight years at Millipore Corporation in sales and sales management and as Vice President of the Biotechnology Division. She received her Master's degree in Biological Sciences from George Washington University, and continued Ph.D. work at the University of Florida. Ms. Masterson provides us with the benefit of her extensive experience as an entrepreneur and an analyst on Wall Street, as well as her 40 years of investment advisory expertise and experiences in the life sciences industry.

Robert O. Rondeau, Jr.
Director

Mr. Rondeau is Managing Partner of Your Perfect Data, LLC, a data mining company since May of 2019. He is also the Managing Partner of Your Flipping Partner, LLC, since August of 2017, a company specializing on fixing and flipping residential homes throughout Metro Detroit. He is also CEO of BRAN Financial, a credit card processing company, a position he has held since 2010. Prior to that, Mr. Rondeau was an Executive Director of Flagstar Bank, (NYSE: FBC), a \$15B bank headquartered in Michigan, where he was in charge of Retail Banking, Commercial, Consumer and Warehouse Lending. Mr. Rondeau received his BA from Northwestern University and an Executive MBA from Michigan State University. Mr. Rondeau's extensive business and financial experience, as well as his background in executive management, led the Board of Directors to nominate Mr. Rondeau for re-election.

Christopher D. Maggiore
Director

Mr. Maggiore was appointed in August, 2013 to serve as a director of the Company. Mr. Maggiore is a successful private investor and has been involved in real estate development, building and management of businesses for over 25 years. He currently owns and manages a portfolio of businesses and investments. Mr. Maggiore provides the Board of Directors with experiences as a successful entrepreneur and builder of business organizations.

Officers and Relevant Business Experience

Andrew A. Dahl
President & Chief Executive Officer

Mr. Dahl was appointed President/CEO on December 16, 2011. Mr. Dahl was at that time an active member and principal consultant at Great Northern & Reserve Partners, a consulting firm he founded in 2005 that provides marketing and business consulting to biotech, biomedical and information technology companies. Previously, Mr. Dahl served as President of Dawber & Company, Inc., formerly one of the oldest independent marketing & consulting firms in the Midwest, with an extensive Fortune 500 client roster of automotive and technology companies. He was employed by Dawber & Company for nearly 20 years until its partners dissolved the firm in 2005. Mr. Dahl attended the College for Creative Studies and Wayne State University. He holds 3 U.S. patents as sole inventor and is a named inventor in 6 recent life sciences U.S. patents. His role at ZIVO includes strategic and business planning, process and organizational development, resource facilitation, as well as duties and obligations of a publicly-listed company officer and manager.

Philip M. Rice II
Age: 66
Chief Financial Officer
Director from 2012 to March 2020

Mr. Rice was appointed Chief Financial Officer in November 2011. In January 2012 Mr. Rice was appointed to the Board of Directors and served until March 2020. Mr. Rice is a member of the Board of Directors of Coherix, Inc. In 2001, Mr. Rice founded Legacy Results, LLC (now Legacy Results Inc.), a management consulting firm providing a wide range of consulting services, including strategic planning, business plan development, turnaround management, financial management, and mergers and acquisitions, and has served as its Managing Partner since that date. From December, 2007 through March, 2008, Mr. Rice served as chairman of the board of IMX Solutions, Inc., a technology company providing secure internet transactions, including private data transactions. Mr. Rice practiced as a CPA and worked for Deloitte & Touche LLP for thirteen years before founding Legacy Results.

Structure and Operation of the Board

Mr. Payne acts as the Chairman of our Board of Directors and Mr. Dahl is our Chief Executive Officer. The Board has a standing compensation committee and a standing nominating and corporate governance committee. We do not have a standing audit committee. The full Board, however, performs all of the functions of a standing audit committee. The following is a brief description of these functions of the Board.

Compensation Committee

The Compensation Committee, which is currently comprised of Ms. Masterson, as Chair, and Mr. Rondeau, establishes the compensation for our President and Chief Executive Officer, including applicable bonus milestones and equity/option grants. The Compensation Committee also may be involved in or may approve, depending on the availability of the full board of directors, grants of awards to other employees, may determine the terms and conditions provided for in each option grant, and may, as requested by our President and Chief Executive Officer, review and recommend to the Board of Directors the amount of compensation to be paid to our officers. The Compensation Committee generally convenes on an as needed basis. The Compensation Committee met 12 times during 2019. The Board of Directors has determined that each member of the Compensation Committee is independent, as independence is defined under the rules of Nasdaq. Our Compensation Committee charter is available on our website, www.zivobioscience.com, under the “Investors – Governance” tab.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee is currently comprised of Ms. Masterson, as Chair, and Mr. Rondeau. The Nominating and Corporate Governance Committee is responsible for, among other things, considering potential Board members, making recommendations to the full Board as to nominees for election to the Board and assessing the effectiveness of the Board. The Nominating and Corporate Governance Committee will consider director candidates recommended by shareholders. Any such candidates will be evaluated on the same basis as other candidates being evaluated by the Nominating and Corporate Governance Committee. Information with respect to such candidates should be sent to ZIVO Bioscience, Inc., 2804 Orchard Lake Road, Suite 202, Keego Harbor, Michigan 48320, Attention: Secretary. The Nominating and Corporate Governance Committee considers the needs for the Board of Directors as a whole when identifying and evaluating nominees and, among other things, considers diversity in background, age, experience, qualifications, attributes and skills in identifying nominees, although it does not have a formal policy regarding the consideration of diversity. For information concerning the procedures to be followed by security holders in nominating candidates, please refer to the information under the caption “Management – Procedures for Shareholders to Nominate Directors.” Each current director nominee was recommended by the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee was formed in February 2020 and did not meet in 2019. The Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is independent, as independence is defined under the rules of Nasdaq. Our Nominating and Corporate Governance Committee charter is available on our website, www.zivobioscience.com, under the “Investors – Governance” tab.

Audit Committee Related Function

We do not have a standing audit committee, and thus we do not have an audit committee charter, but we intend to create an audit committee prior to listing on Nasdaq. The Board of Directors reviews with management and the Company’s independent public accountants the Company’s financial statements, the accounting principles applied in their preparation, the scope of the audit, any comments made by the independent accountants upon the financial condition of the Company and its accounting controls and procedures and such other matters as the Board deems appropriate. During fiscal year 2019, the Board met one time with respect to audit committee related matters. Because the Company’s Common Stock is traded on the Over the Counter Bulletin Board, the Company is not subject to the listing requirements of any securities exchange regarding audit committee related matters.

The Board currently consists of five Directors: Mr. Andrew A. Dahl, Mr. Christopher D. Maggiore, Ms. Nola E. Masterson, Mr. John B. Payne and Mr. Robert O. Rondeau, Jr. (Mr. Rice was a member of the Board until his resignation on March 3, 2020. Mr. Dahl was appointed to the Board on March 4, 2020.) The audit related functions of the Board include:

- Selecting our independent auditors;
- Reviewing the results and scope of the audit and other services provided by our independent auditors; and
- Reviewing and evaluating our audit and control functions.

Non-Employee Director Compensation

Compensation for 2019

The following table sets forth summary information concerning the compensation awarded to, paid to, or earned by the non-employee members of our board of directors for the fiscal year ended December 31, 2019:

<u>Name</u>	<u>Fees Earned or Paid in Cash</u>	<u>Warrants (\$)^{(1) (2)}</u>	<u>Total (\$)</u>
Nola E. Masterson	\$10,000	\$38,523	\$48,523
Christopher D. Maggiore	-0-	38,523	38,523
John B. Payne	10,000	38,523	48,523
Robert O. Rondeau, Jr.	10,000	38,523	48,523

- (1) The amounts reported reflect the grant date fair value (excluding the effect of estimated forfeitures). The grant date fair value of each warrant is calculated using the Black Scholes option-pricing model computed in accordance with FASB ASC Topic 718 and do not correspond to the actual amount that will be realized upon exercise by the named Directors. Valuation assumptions used in determining the grant date fair value of 2019 awards are included in Note 8 the Company's the Financial Statements included on page F-16 hereto.
- (2) Represents a warrant to purchase 500,000 shares of Common Stock at an exercise price of \$.08 with a term of five years. As of December 31, 2019, each of the following non-employee directors had outstanding warrants as follows: Ms. Masterson, 2,000,000; Mr. Maggiore, 2,000,000; Mr. Payne, 2,000,000; and Mr. Rondeau, 1,875,000.

Code of Ethics

We have adopted a code of ethics that applies to the Principal Executive Officer and Principal Financial Officer, or those performing similar functions. A copy of the code of ethics is available on our website, www.zivobioscience.com, under the "Investors – Corporate Governance" tab and will be sent to any shareholder, without charge, upon written request sent to the Company's Chief Financial Officer, Philip M. Rice II, ZIVO Bioscience, Inc., 2804 Orchard Lake Rd, Suite 202, Keego Harbor, MI 48320.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table summarizes the compensation paid to our Chief Executive Officer and Chief Financial Officer (referred to herein as our “named executive officers”) during or with respect to fiscal 2019 and 2018 for services rendered to us in all capacities.

Name and Principal Position	Year	Salary (\$)	Option Awards (\$) ⁽¹⁾	All Other Compensation (\$)	Total (\$)
Andrew A. Dahl	2019	324,167	2,635,967 ⁽²⁾	-	2,960,134
Chief Executive Officer and Director	2018	240,000	-	-	240,000
Philip M. Rice II	2019	238,000	55,798 ⁽³⁾	10,000 ⁽⁴⁾	303,798
Chief Financial Officer	2018	204,000	100,263 ⁽⁵⁾	10,000 ⁽⁴⁾	314,263

(1) The amounts reported reflect the grant date fair value (excluding the effect of estimated forfeitures). The grant date fair value of each warrant is calculated using the Black Scholes option-pricing model computed in accordance with FASB ASC Topic 718 and does not correspond to the actual amount that will be realized upon exercise by the named executive officers. Valuation assumptions used in determining the grant date fair value of 2019 awards are included in Note 3 of the Company’s Financial Statements included on page F-10.

(2) Represents the fair value of an award of compensatory options, pursuant to which Mr. Dahl received the right to purchase 29,000,000 shares of Common Stock at an exercise price between \$.10 and \$.14 with a term of ten years for his role as CEO.

(3) (a) \$38,523 represents the fair value of an award of compensatory warrants, pursuant to which Mr. Rice received the right to purchase 500,000 shares of Common Stock at an exercise price of \$.08 with a term of five years for his role as Director; (b) \$17,275 represents the fair value of an award of compensatory warrants, pursuant to which Mr. Rice received the right to purchase 200,000 shares of Common Stock at an average exercise price of \$.10 with a term of five years, in his position as Chief Financial Officer.

(4) Represents fees paid to Mr. Rice for his role as a Director of the Company.

(5) (a) \$76,814 represents the fair value of an award of compensatory warrants, pursuant to which Mr. Rice received the right to purchase 500,000 shares of Common Stock at an exercise price of \$.14 with a term of five years for his role as Director; (b) \$23,449 represents the fair value of an award of compensatory warrants, pursuant to which Mr. Rice received the right to purchase 200,000 shares of Common Stock at an average exercise price of \$.12 with a term of five years, in his position as Chief Financial Officer.

Executive Compensation Programs

In 2019, the Compensation Committee reviewed financial information and other performance metrics relative to the historical compensation of executive management and comparative information prepared internally. The Compensation Committee also reviewed management’s recommendations for compensation levels of all of the Company’s senior executive officers and considered these recommendations with reference to relative compensation levels of like-size institutions. The totality of the information reviewed by the Compensation Committee was considered when establishing current executive salary levels, and similar analysis is expected to be considered when reviewing and establishing future salaries and long term incentives. The Company’s compensation policies and practices are designed to ensure that they do not foster risk taking above the level of risk associated with the Company’s business model. For this purpose, the Compensation Committee generally considers the Company’s financial performance, comparing that performance to the performance metrics included in the Company’s strategic plan. The Compensation Committee also generally evaluates management’s compensation in light of other specific risk parameters. Based on this assessment, the Compensation Committee believes that the Company has a balanced pay and performance program that does not promote excessive risk taking.

The Company’s compensation programs are aimed at enabling it to attract and retain the best possible executive talent and rewarding those executives commensurate with their ability and performance. The Company’s compensation programs consist primarily of base salary and bonus.

Base Salary. Base salaries for executive officers are determined in the same manner as those other salaried employees. Salary guidelines are established by comparing the responsibilities of the individual's position in relation to similar positions in other nutraceutical companies of similar size. Individual salaries were determined this year by considering respective levels of responsibility, position and industry information.

Bonuses. Mr. Dahl is entitled to a Revenue Bonus (as defined in the Dahl Agreement, as defined below) equal to 2% of the Company's revenue contribution in accordance with a formula as detailed in the Dahl Agreement. No Revenue Bonus is payable in any year where there is an Operating Net Loss (as defined in the Agreement). For the 2020 fiscal year (January 1, 2020 to December 31, 2020) ("Dahl Year One"), the Company shall pay Mr. Dahl a bonus equal to 50% of the Dahl Base Salary (as defined below) if the Company achieves revenues for Dahl Year One which are (w) at least \$500,000; and (x) greater than that for the 12-month period immediately preceding Dahl Year One. In addition, for 2021 fiscal year (January 1, 2021 through December 31, 2021) ("Dahl Year Two"), the Company shall pay Mr. Dahl a bonus equal to 50% of the Dahl Base Salary if the Company achieves revenues for Dahl Year Two which are (y) at least \$500,000; and (z) greater than that for Dahl Year One.

Mr. Rice has no defined bonus plan, but he may be provided bonuses awarded at the discretion of the Board of Directors. The Chief Financial Officer may receive equity-based compensation which compensates him in the form of an equity bonus.

No bonuses were paid in fiscal 2019 or 2018.

Incentive Compensation Plan. In November 2019, the Company adopted the 2019 Omnibus Long-Term Incentive Plan (the "2019 Incentive Plan") for the purpose of enhancing the Company's ability to attract and retain highly qualified directors, officers, key employees and other persons and to motivate such persons to improve the business results and earnings of the Company by providing an opportunity to acquire or increase a direct proprietary interest in the operations and future success of the Company. The 2019 Incentive Plan is administered by the compensation committee of the Board who will, amongst other duties, have full power and authority to take all actions and to make all determinations required or provided for under the 2019 Incentive Plan. Pursuant to the 2019 Incentive Plan, the Company may grant options, share appreciation rights, restricted shares, restricted share units, unrestricted shares and dividend equivalent rights. The 2019 Incentive Plan has a duration of ten years. Subject to adjustment as described in the 2019 Incentive Plan, the aggregate number of common shares available for issuance under the 2019 Incentive Plan is 102,000,000 shares. The exercise price of each share subject to an Option (as defined in the 2019 Incentive Plan) shall be at least the Fair Market Value (as defined in the 2019 Incentive Plan) (except in the case of a more than 10% shareholder of the Company, in which case the price should not be less than 110% of the Fair Market Value) on the date of the grant of a Share and shall have a term of no more than ten years.

Employment Agreements

We currently have compensation agreements with our President / Chief Executive Officer and with our Chief Financial Officer.

Mr. Dahl's Employment Agreement:

The Company's Chief Executive Officer, Andrew Dahl, is serving as Chief Executive Officer under the terms of an amended and restated employment agreement dated November 15, 2019 ("Dahl Agreement") that superseded all prior employment agreements and understandings. Under the terms of the Dahl Agreement, Mr. Dahl's agreement provides for a term of three years, with successive automatic renewals for one year terms, unless either party terminates the Dahl Agreement on at least 60 days' notice prior to the expiration of the then current term of Mr. Dahl's employment. Mr. Dahl has received an annual base salary, commencing on June 1, 2019, of \$440,000 ("Base Salary"), of which \$7,500 per month has been deferred until either of the following events occur: (i) within five (5) years after the effective date, the Company enters into a term sheet to receive at least \$25,000,000 in equity or other form of investment or debt on terms satisfactory to the board of directors of the Company including funding at closing on such terms of at least \$10 million; or (ii) within 12 months after the effective date that the Company receives revenue of at least \$10 million. The Dahl Base Salary is subject to annual review and increase (but not decrease) by the Board during the employment term with minimum annual increases of 4% over the previous year's Dahl Base Salary.

Mr. Dahl is entitled to a Revenue Bonus under the Dahl Agreement (see *Bonuses* above).

Mr. Dahl was awarded a non-qualified option to purchase 28 million shares of the Company's Common Stock at a price of \$0.10 per share upon signing the Dahl Agreement. Mr. Dahl will be entitled to non-qualified performance-based options having an exercise price equal to the greater of \$.10 per share and the Fair Market Value (as defined in the 2019 Incentive Plan), upon the attainment of specified milestones as follows: (i) non-qualified option to purchase 1,000,000 common shares upon identification of bioactive agents in the Company product and filing of a patent with respect thereto; (ii) non-qualified option to purchase 1,500,000 common shares upon entering into a contract under which the Company receives at least \$500,000 in cash payments; (iii) non-qualified option to purchase 1,500,000 common shares upon the Company entering into a co-development agreement with a research company to develop medicinal or pharmaceutical applications (where the partner provides at least \$2,000,000 in cash or in-kind outlays); (iv) non-qualified option to purchase 1,500,000 common shares upon the Company entering into a co-development agreement for nutraceutical or dietary supplement applications (where the partner provides at least \$2,000,000 in cash or in-kind outlays); and (v) non-qualified option to purchase 1,500,000 common shares upon the Company entering into a pharmaceutical development agreement. Note that item (i) was achieved in 2019 and the Company awarded a non-qualified option to purchase 1,000,000 common shares of the Company's Common Stock at a price of \$0.14 per share.

As it relates to Wellmetrix, if and when at least \$2 million in equity capital is raised from a third party and invested in Wellmetrix in an arms-length transaction, Mr. Dahl shall be granted a warrant to purchase an equity interest in Wellmetrix that is equal to the equity interest in Wellmetrix owned by the Company at the time of the first tranche of any such capital raise (the "Wellmetrix Warrant"). The Wellmetrix Warrant shall be fully vested as of the date it is granted and shall expire on the 10th anniversary of the grant date. Once granted, the Wellmetrix Warrant may be exercised from time to time in whole or in part, with Mr. Dahl retaining any unexercised portion. The exercise price for the Wellmetrix Warrant shall be equal to the fair market value of the interest in Wellmetrix implied by the pricing of the first tranche of any such capital raise.

The Dahl Agreement provides that if a Change of Control (as defined in the Dahl Agreement) occurs and Mr. Dahl's employment is terminated without Cause (as defined in the Dahl Agreement) or Mr. Dahl resigns for Good Cause (as defined in the Dahl Agreement) during the 24-month period following the Change of Control or during the sixty (60) days immediately preceding the date of a Change of Control, 100% of Mr. Dahl's unvested options will be fully vested. The Dahl Agreement also provides for severance payments of, amongst other things, 300% of the Dahl Base Salary and 2x the amount of the Revenue Bonus in such event.

Mr. Rice's Employment Arrangement:

On March 4, 2020, the Company entered into an employment letter with Philip Rice, Chief Financial Officer of the Company ("Rice Agreement") that superseded all prior employment understandings and agreements. Under the terms of the Rice Agreement, Mr. Rice will serve as Chief Financial Officer of the Company for one year, with successive automatic renewals for one year terms, unless either party terminates the Rice Agreement on at least sixty days' notice prior to the expiration of the then current term of the Rice Agreement. Mr. Rice will receive an annual base salary, commencing on January 1, 2020, of \$280,000 ("Rice Base Salary"). The Rice Base Salary shall increase to \$300,000, when the following event occurs: within one (1) year after the effective date, the Company enters into a term sheet and receives the related financing to receive at least \$15,000,000 in equity or other form of investment or debt ("Third Party Financing") on terms satisfactory to the board of directors of the Company. On the date the Rice Agreement was executed, Mr. Rice received a fully-vested nonqualified stock option to purchase 2,000,000 shares of the Company's Common Stock at a price of \$0.15 per and a \$25,000 retention bonus.

Mr. Rice shall also receive \$50,000 and a fully-vested nonqualified stock option to purchase 2,000,000 shares of the Company's Common Stock exercisable at a price equal to the sixty (60) day trailing quoted price of the Common Stock of the Company in the OTC market, upon the closing, prior to December 31, 2020, of Third Party Financing which raises at least \$15,000,000, as long as Mr. Rice was employed at the time of closing or was employed within one year prior to the closing. If, upon the closing prior to December 31, 2021 of Third Party Financing which raises at least \$10,000,000 for the Company, Mr. Rice shall receive an additional bonus of \$50,000, as long as Mr. Rice was employed at the time of closing or if employed within one year prior to the closing.

The Rice Agreement provides that if a Change of Control (as defined in the Rice Agreement) occurs and Mr. Rice resigns for Good Reason (as defined in the Rice Agreement) or Mr. Rice's employment is terminated without Cause (as defined in the Rice Agreement) during the 24-month period following the Change of Control or during the sixty (60) days immediately preceding the date of a Change of Control, 100% of Mr. Rice's unvested options will be fully vested and the restrictions on his restricted shares will lapse. The Rice Agreement also provides for severance payments of, amongst other things, a lump sum payment of 300% of the Rice Base Salary and payment of 24 months of the Rice Base Salary in such event.

Mr. Rice will receive the following severance benefits following a termination of employment: a continuation of the Rice Base Salary for one year and a fully-vested, nonqualified stock option to purchase 1,000,000 shares of the Company's Common Stock priced at the sixty (60) day trailing quoted price of the Common Stock of the Company in the OTC market.

Amended Change of Control Agreement

On December 31, 2018, the Company entered into an Amended Change of Control Agreement with Mr. Rice. Under the Amended Change of Control Agreement, if Mr. Rice's employment with the Company ceases within the 24-month period following the date of a Change of Control (as defined in the Amended Change of Control Agreement), Mr. Rice will be entitled to any Base Salary (as defined in the Amended Change of Control Agreement) earned through the effective date of the termination, any bonus payable with respect to any fiscal year which ended prior to the effective date of the termination, any reimbursement or payment due to Mr. Rice, a lump sum cash payment equal to 500% of Mr. Rice's Base Salary, a lump sum cash payment equal to 5 times Mr. Rice's annual Target Bonus (as defined in the Amended Change of Control Agreement), reimbursement for the monthly COBRA cost of continued coverage for Mr. Rice and his spouse and eligible dependents, and conversion of all vested warrants and contingent warrants to vested Warrants (as defined in the Amended Change of Control Agreement). Mr. Rice is entitled to the same benefits, with the exception of the conversion of warrants, if his employment with the Company ceases during the 90 days immediately preceding the date of a Change of Control. The Amended Change of Control Agreement also includes non-solicitation and non-competition provisions applicable to Mr. Rice during his employment with the Company and for one year following the later of termination of his employment or the date of a Change of Control.

Outstanding Equity Awards at Fiscal Year-End 2019

The following table provides information on the outstanding equity awards held by our named executive officers as of December 31, 2019.

Option Awards					
Name	Grant Date	Number of securities underlying unexercised options exercisable ⁽¹⁾	Equity incentive plan awards: Number of securities underlying unexercised unearned options ⁽²⁾	Option Exercise Price (\$)	Option Expiration Date
Andrew A. Dahl	11/15/2019	28,000,000		0.10	11/15/2029
	12/6/2019	1,000,000		0.14	12/6/2029
	11/8/2017	10,000,000		0.08	11/8/2022
Philip M. Rice II	8/14/2012		6,000,000 ⁽²⁾	0.25	8/14/2022
	10/28/2019	50,000		0.08	10/28/2024
	9/26/2019	500,000		0.08	9/26/2024
	8/7/2019	50,000		0.10	8/7/2024
	5/13/2019	50,000		0.10	5/13/2024
	2/13/2019	50,000		0.10	2/13/2024
	11/14/2018	50,000		0.14	11/14/2023
	9/28/2018	500,000		0.14	9/28/2023
	8/14/2018	50,000		0.12	8/14/2023
	4/23/2018	50,000		0.10	4/23/2023
	2/21/2018	50,000		0.10	2/21/2023
	11/8/2017	6,000,000		0.08	11/8/2022
	10/19/2017	50,000		0.09	10/19/2022
	9/11/2017	500,000		0.07	9/11/2022
	8/11/2017	50,000		0.06	8/11/2022
	5/12/2017	50,000		0.09	5/12/2022
	3/31/2017	50,000		0.08	3/21/2022
11/14/2016	50,000		0.05	11/14/2021	
9/10/2016	250,000		0.07	9/10/2021	
8/12/2016	50,000		0.08	8/12/2021	
5/13/2016	50,000		0.08	5/13/2021	
3/29/2016	50,000		0.08	3/29/2021	
11/13/2015	50,000		0.08	11/13/2020	
9/10/2015	250,000		0.10	9/10/2020	
8/13/2015	50,000		0.11	8/13/2020	
5/13/2015	50,000		0.08	5/13/2020	
4/6/2015	50,000		0.09	4/6/2020	

(1) All options granted are immediately vested.

(2) Represents compensatory warrants granted pursuant to the terms of the Dahl Agreement, which shall become exercisable upon the occurrence of a specific event. See "Mr. Dahl's Employment Agreement" for a description of these warrants.

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 412,321,520 shares of Common Stock issued and outstanding as of December 4, 2020, 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:

<u>Name and Address</u>	<u>Number of Shares Beneficially Owned ⁽¹⁾</u>	<u>% of Class</u>
HEP Investments, LLC 2804 Orchard Lake Rd. Suite 205 Keego Harbor, MI 48302	206,697,834 ⁽²⁾	40.2%
Strome 1688 Meridian Ave, Suite 727 Miami Beach, FL 33139	95,431,229 ⁽³⁾	19.3%
Christopher D. Maggiore 4788 Nobles Pond Dr. NW Canton, OH 44718	57,476,775 ^{(4) (5) (6)}	12.7%

Security Ownership of Management:

<u>Name and Address</u>	<u>Number of Shares Beneficially Owned ⁽¹⁾</u>	<u>% of Class</u>
Mr. Christopher D. Maggiore	57,476,775 ^{(4) (5) (6)}	12.7%
Mr. Andrew A. Dahl	35,685,925 ⁽⁷⁾	8.0%
Mr. Philip M. Rice II	11,572,455 ⁽⁸⁾	2.7%
Mr. Robert O. Rondeau, Jr.	1,875,000 ⁽⁹⁾	*
Mr. John B. Payne	1,772,455 ⁽¹⁰⁾	*
Nola E. Masterson	1,609,849 ⁽¹¹⁾	*
All Directors and Officers as a Group (6 persons)	109,992,459 ⁽¹²⁾	23.3%

*** 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 31,209,906 shares of Common Stock issuable upon conversion of certain promissory notes, including accrued interest as of December 4, 2020 (which does not include 29,093,100 shares which are transferable to Strome Group (as defined below), pursuant to the First Amended and Restated Participation Agreement between HEP Investments, Strome Mezzanine Fund, L.P., Strome Alpha Fund, L.P. and ZIVO dated June 28, 2018) and 70,977,251 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.

- (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 29,093,100 shares of Common Stock issuable upon conversion of certain promissory notes (including accrued interest as of December 4, 2020) in favor of HEP, transferable to entities affiliated with Mark E. Strome pursuant to the First Amended and Restated Participation Agreement between HEP, Strome Mezzanine Fund, L.P., Strome Alpha Fund, L.P. and ZIVO dated June 28, 2018, and 53,250,000 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 13G/A filed with the SEC on February 19, 2020, Christopher D. Maggiore has sole power to vote 40,904,577 shares, sole power to dispose 40,904,577 shares, shared power to vote 7,882,740 shares and shared power to dispose 7,882,740 shares.
- (5) Includes warrants to purchase 8,673,672 shares of Common Stock.
- (6) Includes 7,882,740 beneficial shares held in the estate of the Robert S. McLain Estate of which Mr. Maggiore is the controlling trustee.
- (7) Includes options and warrants to purchase 35,000,000 shares of Common Stock.
- (8) Includes options and warrants to purchase 10,550,000 shares of Common Stock owned by Mr. Rice, and warrants to purchase 1,000,000 shares of Common Stock owned by Mr. Rice's spouse.
- (9) Includes warrants to purchase 1,750,000 shares of Common Stock.
- (10) Includes warrants to purchase 1,750,000 shares of Common Stock.
- (11) Includes warrants to purchase 1,250,000 shares of Common Stock.
- (12) Includes options and warrants to purchase a total of 59,923,672 shares of Common Stock.

Equity Compensation Plan Information

The following table summarizes our equity compensation plan information as of December 31, 2019. Information is included for equity compensation plans approved by our stockholders and equity compensation plans not approved by our stockholders. We will not grant equity awards in the future under any of the equity compensation plans not approved by our stockholders included in the table below.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights(1)	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights(2)	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans not approved by stockholders	29,000,000	\$.10	73,000,000
Equity compensation plans approved by stockholders	-	-	-
Total	29,000,000	\$.10	73,000,000

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Policies and Procedures for Related Party Transactions

We have adopted a formal policy that our executive officers, directors, holders of more than 5% of any class of our voting securities, and any member of the immediate family of and any entity affiliated with any of the foregoing persons, are not permitted to enter into a related party transaction with us without the prior consent of our audit committee, or other independent members of our board of directors if it is inappropriate for our audit committee to review such transaction due to a conflict of interest. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of their immediate family members or affiliates, in which the amount involved exceeds the lesser of \$120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction. All of the transactions described above were entered into prior to the adoption of this policy.

Related Party Transactions

We describe below transactions and series of similar transactions, since January 1, 2018, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed the lesser of \$120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years; and
- any of our directors, nominees for director, executive officers or holders of more than 5% of our outstanding capital stock, or any immediate family member of, or person sharing the household with, any of these individuals or entities, had or will have a direct or indirect material interest.

Other than as described below, there has not been, nor is there any currently proposed, transactions or series of similar transactions to which we have been or will be a party.

Other Transactions

We have granted stock options and warrants to our named executive officers and certain of our directors. See the section titled "Executive Compensation—Outstanding Equity Awards at 2019 Year-End" for a description of these stock options.

Consulting Arrangement

Our Executive Director of Asia Operations, Wendy Chiao, is the spouse of our Chief Financial Officer. Our Executive Director of Asia Operations is contracted on a month to month basis and was paid \$99,000 in 2019 and paid \$99,000 in 2018. In 2018, Ms. Chiao was issued warrants to purchase 1,000,000 shares of Common Stock at an exercise price of \$0.11 with a term of 5 years. Her contract was terminated in November 2019.

HEP Investments

As of January 1, 2018, the Company owed HEP Investments, a related party, \$475,834 pursuant to the terms an agreement with HEP Investments. The origin of the payable was a 5.4% cash finance fee for monies invested in the Company in the form of convertible debt. During the year ended December 31, 2018, as a result of various financings HEP Investments earned an additional \$96,595 in finance fees. In the same year the Company paid \$140,000 in cash for a balance due to related party on December 31, 2018 of \$432,429.

During the year ended December 31, 2019 the Company borrowed an additional \$110,500 in working capital. The total of \$542,929 was repaid with cash of \$78,000 and \$464,929 by issuing 4,649,291 shares of Common Stock at \$.10 per share.

During the nine months ended September 30, 2020, HEP Investments advanced the Company \$139,000. The Company repaid \$30,000 during this period and as of September 30, 2020, HEP Investments was owed \$109,000.

Additionally, on October 4, 2020, HEP Investments converted \$100,000 of this amount into the License Co-Development Participation Agreement. The net amount remaining of \$9,000 remained as Loan Payable, Related Party.

Chris Maggiore

On January 1, 2018 the Company owed Mr. Christopher Maggiore, a director and significant shareholder \$176,405 as a result of cash advances for continuing operations. During the year ended December 31, 2018, Mr. Maggiore advanced an additional \$500,000 to the Company, which he then converted to 5,000,000 units of the Company at \$.10 per unit. Each unit consisted of share of Common Stock and warrants to purchase 20% of one share of Common Stock at an exercise price of \$.10 per share (1,000,000 warrants). As of December 31, 2018, the Company owed Mr. Maggiore \$176,405 in principal and accrued interest of \$111,369.

During the year ended December 31, 2019, Mr. Maggiore converted the principal balance of \$176,405 and accrued interest of \$135,431 at \$.10 per share into 3,118,359 units of the Company at \$.10 per unit. Each unit consisted of one share of Common Stock and five-year warrants to purchase 20% of one share of Common Stock (623,672 warrants) at \$.10 per share. As of December 31, 2019, there were no outstanding loans payable to Maggiore.

During the nine months ended September 30, 2020, Mr. Maggiore, advanced \$20,000 to the Company. On September 15, 2020, Mr. Maggiore applied the \$20,000 of the loan balance to fund the purchase of 200,000 shares of Common Stock at an exercise price of \$.10 per share. During the nine months ended September 30, 2020, the Company accrued interest expense on loans payable to Mr. Maggiore of \$1,254.

Additionally, on October 21, 2020, Mr. Maggiore applied the \$1,254 of the accrued interest due as of September 30, 2020 to purchase 12,537 shares of Common Stock at an exercise price of \$.10 per share.

Director Independence

We are not currently subject to listing requirements of any national securities exchange that has requirements that a majority of the board of directors be "independent." Nevertheless, we expect that our board of directors will determine that all of our directors, other than Mr. Dahl, qualify as "independent" directors in accordance with listing requirements of The Nasdaq Stock Market, or Nasdaq. Mr. Dahl is not considered independent because he is an employee of ZIVO. The Nasdaq independence definition includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us.

The following is a brief description of the structure and certain functions of our Board of Directors. Each of the current directors is serving until his or her respective successor is duly elected and qualified, subject to earlier resignation. The Board currently consists of five directors, one of whom is an employee director, each of whom has been nominated for election as a director at this Annual Meeting. The Board of Directors has determined that each director, other than Mr. Dahl, is independent. Under the rules of Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Each director was nominated based on his or her knowledge of the Company, his or her skills, expertise and willingness to serve as a director. The Board usually meets in scheduled meetings either in person or via conference telephone call. The Board of Directors held seven (7) meetings during the fiscal year ended December 31, 2019. Each of the directors attended at least 75% of the scheduled meetings of the Board of Directors, and the Compensation Committee if such director served on the committee, during the period. Members of the Board of Directors are strongly encouraged to attend the Company's annual meeting of shareholders in person. If attendance in person is not possible, members of the Board of Directors are strongly encouraged to attend the Company's annual meeting of shareholders via telephone or similar communication equipment. Each of the current directors attended the annual meeting of shareholders in 2019.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

In this Offering, we are offering our Units, with each Unit consisting of one share of our Common Stock and a warrant to purchase one share of our Common Stock. Our Units will not be certificated and the shares of our Common Stock and the warrants part of such Units are immediately separable and will be issued separately in this Offering. We are also registering the shares of Common Stock issuable upon exercise of the warrants. These securities are being issued pursuant to an underwriting agreement between us and the underwriters. You should review the underwriting agreement and the form of warrant, each filed as exhibits to the registration statement of which this prospectus is a part, for a complete description of the terms and conditions applicable to the warrants. The following brief summary of the material terms and provisions of the warrants is subject to, and qualified in its entirety by, the form of warrant.

UNITS

We are offering our Units, with each Unit consisting of one share of our Common Stock and a warrant to purchase one share of our Common Stock, together with the shares of our Common Stock underlying such warrants, at an assumed public offering price of \$ per Unit. Our Units will not be certificated and the shares of our Common Stock and the warrants part of such Units are immediately separable and will be issued separately in this Offering.

WARRANTS

Overview. The warrants offered hereby will be issued pursuant to a Warrant Agent Agreement, dated as of the effective date of this Offering (the “Warrant Agent Agreement”), between us and Direct Transfer LLC, as the warrant agent (the “Warrant Agent”). Certain provisions of the warrants are set forth herein but are only a summary and are qualified in their entirety by the relevant provisions of the Warrant Agent Agreement and the form of warrant, both of which are filed as exhibits to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the Warrant Agent Agreement, including the annexes thereto, and form of warrant.

The warrants issued in this Offering entitle the registered holder to purchase one share of our Common Stock at a price equal to \$ per share (based on an assumed offering price of \$ per Unit), subject to adjustment as discussed below, immediately following the issuance of such warrant and terminating at 5:00 p.m., New York City time, five years after the closing of this Offering.

Exercisability. The 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 warrants may be exercised by delivering a duly executed exercise notice on or prior to the expiration date at the offices of the Warrant Agent, accompanied by full payment of the exercise price, by certified or official bank check payable to the Warrant Agent, for the number of warrants being exercised. Under the terms of the Warrant Agreement, 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 warrants until the expiration of the 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 warrants, the holders of the warrants shall have the right to exercise the warrants solely via a cashless exercise feature provided for in the warrants, until such time as there is an effective registration statement and current prospectus.

Exercise Limitation. A holder may not exercise any portion of a 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 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 warrants is \$ per share (based on an assumed public offering price of \$ per Unit) or % of public offering price of the Common Stock. 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 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 warrants. If, upon exercise of the 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 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 warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. We have applied to list our warrants on Nasdaq under the symbol “ZIVOW.” No assurance can be given that our listing application will be approved.

Warrant Agent; Global Certificate. The warrants will be issued in registered form under the Warrant Agent Agreement. The warrants shall initially be represented only by one or more global warrants deposited with the Warrant Agent, as custodian on behalf of The Depository Trust Company (DTC) and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Fundamental Transactions. In the event of a fundamental transaction, as described in the 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 warrants, the holders of the 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 warrants immediately prior to such fundamental transaction.

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 warrants and receive shares of Common Stock. After the issuance of shares of Common Stock upon exercise of the 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 warrants and the Warrant Agent Agreement are governed by New York law.

Representative’s Warrants. The registration statement of which this prospectus is a part also registers for sale the Representative’s Warrants, as a portion of the underwriting compensation payable to the Representative in connection with this Offering. The Representative’s Warrants will be exercisable at any time, and from time to time, in whole or in part, during the five (5) year period commencing 180 days from the effective date of the registration statement of which this prospectus is a part at an exercise price of \$ (110% of the public offering price per Unit in the offering (based on the assumed public offering price of \$ per Unit. Please see “Underwriting—Representative’s Warrants” for a description of the warrants we have agreed to issue to the Representative in this Offering, subject to the completion of the offering. We expect to enter into a warrant agreement in respect of the Representative’s Warrants prior to the closing of 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 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.

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 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 Stockholders will be payable when, as and if declared by our Board, 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 PROVISIONS 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, (b) 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 (c) 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 may fix the number of directors at no less than one and no more than nine. Any vacancy on the Board may be filled by the affirmative vote of a majority of the remaining directors though less than a quorum of the Board. 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 shares 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 shares to elect any Directors to our Board.

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 Securities and Exchange Commission (the "Commission") 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 is currently quoted on the OTCQB Market under the ticker symbol "ZIVO."

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material U.S. federal income tax considerations relating to the purchase, ownership and disposition of our Units, Common Stock and warrants purchased in this Offering, which we refer to collectively as our securities, but is for general information purposes only and does not purport to be a complete analysis of all the potential tax considerations. The holder of a Unit generally should be treated, for U.S. federal income tax purposes, as the owner of the underlying one share of Common Stock and one warrant to purchase one share of Common Stock that underlie the Unit, as the case may be. As a result, the discussion below with respect to actual holders of Common Stock and warrants should also apply to holders of Units (as the deemed owners of the underlying Common Stock and warrants that comprise the Units). This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed, possibly with retroactive effect, so as to result in U.S. federal income and estate tax consequences different from those set forth below. There can be no assurance that the Internal Revenue Service (the "IRS") will not challenge one or more of the tax consequences described herein, and we have not obtained, and do not intend to obtain, an opinion of counsel or ruling from the IRS with respect to the U.S. federal income tax considerations relating to the purchase, ownership or disposition of our securities.

This summary does not address any alternative minimum tax considerations, any considerations regarding the tax on net investment income, or the tax considerations arising under the laws of any state, local or non-U.S. jurisdiction, or under any non-income tax laws, including U.S. federal gift and estate tax laws, except to the limited extent set forth below. This summary assumes that our securities will be held as capital assets (generally, property held for investment). In addition, this summary does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies, or other financial institutions;
- tax-exempt organizations or governmental organizations;
- regulated investment companies and real estate investment trusts;
- insurance companies;
- controlled foreign corporations, passive foreign investment companies, and corporations that accumulate earnings to avoid U.S. federal income tax;
- brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than 5% of our capital stock (except to the extent explicitly set forth below);
- pension plans;
- persons who hold our securities as a position in a hedging transaction, "straddle," "conversion transaction," synthetic security, or other integrated investment;
- persons who do not hold our securities as a capital asset within the meaning of Section 1221 of the Code;
- entities or arrangements classified as partnerships for U.S. federal income tax purposes and other pass-through entities (and partners or other investors therein);
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our securities being taken into account in an applicable financial statement;
- persons deemed to sell our securities under the constructive sale provisions of the Code; and
- certain U.S. expatriates and certain former citizens or long-term residents of the United States.

In addition, if a partnership (or entity or arrangement classified as a partnership for U.S. federal income tax purposes) holds our securities, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our securities, and partners in such partnerships, should consult their tax advisors.

You are urged to consult your own tax advisors with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our securities arising under the U.S. federal estate or gift tax laws or under the laws of any state, local, non-U.S., or other taxing jurisdiction or under any applicable tax treaty.

Allocation of Purchase Price and Characterization of a Unit

No statutory, administrative or judicial authority directly addresses the treatment of a Unit or instruments similar to a Unit for U.S. federal income tax purposes and, therefore, that treatment is not entirely clear. The acquisition of a Unit should be treated for U.S. federal income tax purposes as the acquisition of one share of Common Stock and one warrant to purchase one share of Common Stock. For U.S. federal income tax purposes, each holder of a Unit must allocate the purchase price paid by such holder for such Unit between such one share of Common Stock and one warrant to purchase one share of Common Stock based on their relative fair market values at the time of issuance. Under U.S. federal income tax law, each investor must make his or her own determination of such value based on all the relevant facts and circumstances. Therefore, we strongly urge each investor to consult his or her tax advisor regarding the determination of value for these purposes. The price allocated to each share of Common Stock and each warrant should be the stockholder's tax basis in such share or warrant, as the case may be. Any disposition of a Unit should be treated for U.S. federal income tax purposes as a disposition of the one share of Common Stock and one warrant to purchase one share of Common Stock comprising the Unit, and the amount realized on the disposition should be allocated between the one share of Common Stock and one warrant to purchase one share of Common Stock based on their respective relative fair market values (as determined by each such Unit holder based on all of the relevant facts and circumstances) at the time of disposition. The separation of the Common Stock and warrants comprising Units should not be a taxable event for U.S. federal income tax purposes.

The foregoing treatment of the Common Stock and warrants and a holder's purchase price allocation are not binding on the IRS or the courts. Because there are no authorities that directly address instruments that are similar to the Units, no assurance can be given that the IRS or the courts will agree with the characterization described above or the discussion below. Accordingly, each prospective investor is urged to consult its own tax advisors regarding the tax consequences of an investment in a Unit (including alternative characterizations of a Unit). The balance of this discussion assumes that the characterization of the Units described above is respected for U.S. federal income tax purposes.

Consequences to U.S. Holders

The following is a summary of the U.S. federal income tax consequences that will apply to a U.S. holder of our securities. For purposes of this discussion, you are a U.S. holder if, for U.S. federal income tax purposes, you are a beneficial owner of our securities (other than a partnership or an entity or arrangement classified as a partnership for U.S. federal income tax purposes) that is:

- an individual citizen or resident of the United States;
- a corporation or other entity taxable as a corporation for U.S. federal income tax purposes created or organized in the United States or under the laws of the United States, any State thereof or the District of Columbia;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a U.S. court and which has one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) who have the authority to control all substantial decisions of the trust or (y) which has made a valid election to be treated as a "United States person."

Distributions

As described in the section titled "Dividend Policy," we have never declared or paid cash dividends on our Common Stock and do not anticipate paying any dividends on our Common Stock in the foreseeable future. However, if we do make distributions on our Common Stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, the excess will constitute a return of capital and will first reduce your basis in our Common Stock, but not below zero, and then will be treated as gain from the sale of stock as described below under "Sale, Exchange or Other Taxable Disposition of Common Stock."

Dividend income may be taxed to an individual U.S. holder at rates applicable to long-term capital gains, provided that a minimum holding period and other limitations and requirements are satisfied. Any dividends that we pay to a U.S. holder that is a corporation will qualify for a deduction allowed to U.S. corporations in respect of dividends received from other U.S. corporations equal to a portion of any dividends received, subject to generally applicable limitations on that deduction. U.S. holders should consult their own tax advisors regarding the holding period and other requirements that must be satisfied in order to qualify for the reduced tax rate on dividends or the dividends-received deduction.

Constructive Distributions

The terms of the warrants allow for changes in the exercise price of the warrants under certain circumstances. A change in exercise price of a warrant that allows holders to receive more shares of Common Stock on exercise may increase a holder's proportionate interest in our earnings and profits or assets. In that case, such holder may be treated as though it received a taxable distribution in the form of our Common Stock. A taxable constructive stock distribution would generally result, for example, if the exercise price is adjusted to compensate holders for distributions of cash or property to our stockholders.

Not all changes in the exercise price that result in a holder's receiving more Common Stock on exercise, however, would be considered as increasing a holder's proportionate interest in our earnings and profits or assets. For instance, a change in exercise price could simply prevent the dilution of a holder's interest upon a stock split or other change in capital structure. Changes of this type, if made pursuant to bona fide, reasonable adjustment formula, are not treated as constructive stock distributions for these purposes. Conversely, if an event occurs that dilutes a holder's interest and the exercise price is not adjusted, the resulting increase in the proportionate interests of our stockholders could be treated as a taxable stock distribution to our stockholders.

Any taxable constructive stock distributions resulting from a change to, or a failure to change, the exercise price of the warrants that is treated as a distribution of Common Stock would be treated for U.S. federal income tax purposes in the same manner as distributions on our Common Stock paid in cash or other property, resulting in a taxable dividend to the recipient to the extent of our current or accumulated earnings and profits (with the recipient's tax basis in its Common Stock or warrants, as applicable, being increased by the amount of such dividend), and with any excess treated as a return of capital or as capital gain. U.S. holders should consult their own tax advisors regarding whether any taxable constructive stock dividend would be eligible for tax rates applicable to long-term capital gains or the dividends-received deduction described above under "Consequences to U.S. Holders—Distributions," as the requisite applicable holding period requirements might not be considered to be satisfied.

Sale, Exchange or Other Taxable Disposition of Common Stock

A U.S. holder will generally recognize capital gain or loss on the sale, exchange or other taxable disposition of our Common Stock. The amount of gain or loss will equal the difference between the amount realized on the sale and such U.S. holder's tax basis in such Common Stock. The amount realized will include the amount of any cash and the fair market value of any other property received in exchange for such Common Stock. Gain or loss will be long-term capital gain or loss if the U.S. holder has held the Common Stock for more than one year. Long-term capital gains of non-corporate U.S. holders are generally taxed at preferential rates. The deductibility of capital losses is subject to certain limitations.

Sale, Exchange, Redemption, Lapse or Other Taxable Disposition of a Warrant

Upon a sale, exchange, redemption, lapse or other taxable disposition of a warrant, a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between the amount realized (if any) on the disposition and such U.S. holder's tax basis in the warrant. The amount realized will include the amount of any cash and the fair market value of any other property received in exchange for the warrant. The U.S. holder's tax basis in the warrant generally will equal the amount the holder paid for the warrant. Gain or loss will be long-term capital gain or loss if the U.S. holder has held the warrant for more than one year. Long-term capital gains of non-corporate U.S. holders are generally taxed at preferential rates. The deductibility of capital losses is subject to certain limitations.

Exercise of a Warrant

The exercise of a warrant for shares of Common Stock generally will not be a taxable event for the exercising U.S. holder, except with respect to cash, if any, received in lieu of a fractional share. A U.S. holder will have a tax basis in the shares of Common Stock received on exercise of a warrant equal to the sum of the U.S. holder's tax basis in the warrant surrendered, reduced by any portion of the basis allocable to a fractional share, plus the exercise price of the warrant. A U.S. holder generally will have a holding period in shares of Common Stock acquired on exercise of a warrant that commences on the date of exercise of the warrant.

Consequences to Non-U.S. Holders

The following is a summary of the U.S. federal income tax consequences that will apply to a non-U.S. holder of our securities. A “non-U.S. holder” is a beneficial owner of our securities (other than a partnership or an entity or arrangement classified as a partnership for U.S. federal income tax purposes) that, for U.S. federal income tax purposes, is not a U.S. holder.

Distributions

Subject to the discussion below regarding effectively connected income, any dividend, including any taxable constructive stock dividend resulting from certain adjustments, or failure to make adjustments, to the exercise price of a warrant (as described above under “Consequences to U.S. Holders—Constructive Distributions”), paid to a non-U.S. holder generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, a non-U.S. holder must provide us with an IRS Form W-8BEN, IRS Form W-8BEN-E or other applicable IRS Form W-8 properly certifying qualification for the reduced rate. These forms must be updated periodically. A non-U.S. holder eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. If a non-U.S. holder holds our securities through a financial institution or other agent acting on the non-U.S. holder’s behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then may be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Dividends received by a non-U.S. holder that are effectively connected with its conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States) are generally exempt from such withholding tax if the non-U.S. holder satisfies certain certification and disclosure requirements. In order to obtain this exemption, the non-U.S. holder must provide us with an IRS Form W-8ECI or other applicable IRS Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated U.S. federal income tax rates applicable to U.S. holders, net of certain deductions and credits. In addition, dividends received by a corporate non-U.S. holder that are effectively connected with its conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty. Non-U.S. holders should consult their own tax advisors regarding any applicable tax treaties that may provide for different rules.

Gain on Sale, Exchange or Other Taxable Disposition of Common Stock or Warrants

Subject to the discussion below regarding backup withholding and foreign accounts, a non-U.S. holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale, exchange or other taxable disposition of our Common Stock or a warrant unless:

- the gain is effectively connected with the non-U.S. holder’s conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States);
- the non-U.S. holder is a non-resident alien individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or
- shares of our Common Stock or our warrants, as applicable, constitute U.S. real property interests by reason of our status as a “United States real property holding corporation” (a “USRPHC”) for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the non-U.S. holder’s disposition of, or the non-U.S. holder’s holding period for, our Common Stock or warrants, as applicable.

Generally, a corporation is a USRPHC if the fair market value of its “U.S. real property interests” (as defined in the Code and applicable regulations) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not currently and will not become a USRPHC for U.S. federal income tax purposes, and the remainder of this discussion assumes that we are not currently and we will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our Common Stock is regularly traded on an established securities market, such Common Stock will be treated as U.S. real property interests only if the non-U.S. holder actually or constructively holds more than 5% of such regularly traded Common Stock at any time during the shorter of the five-year period preceding the non-U.S. holder’s disposition of, or the non-U.S. holder’s holding period for, our Common Stock. In addition, provided that our Common Stock is regularly traded on an established securities market, a warrant will not be treated as a U.S. real property interest with respect to a non-U.S. holder if such holder did not own, actually or constructively, warrants whose total fair market value on the date they were acquired (and on the date or dates any additional warrants were acquired) exceeded the fair market value on that date (and on the date or dates any additional warrants were acquired) of 5% of all of our Common Stock.

If the non-U.S. holder is described in the first bullet above, it will be required to pay tax on the net gain derived from the sale, exchange or other taxable disposition our Common Stock or a warrant under regular graduated U.S. federal income tax rates, and a corporate non-U.S. holder described in the first bullet above also may be subject to the branch profits tax at a rate of 30%, or such lower rate as may be specified by an applicable income tax treaty. An individual non-U.S. holder described in the second bullet above will be required to pay a flat 30% tax (or such lower rate specified by an applicable income tax treaty) on the gain derived from the sale, exchange or other taxable disposition, which gain may be offset by U.S. source capital losses for the year (provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses). Non-U.S. holders should consult their own tax advisors regarding any applicable income tax or other treaties that may provide for different rules.

Federal Estate Tax

Common Stock or warrants beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of their death will generally be includable in the decedent’s gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax treaty provides otherwise. Non-U.S. holders should consult their own tax advisors regarding the U.S. federal estate tax consequences of the ownership or disposition of our securities.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of distributions (including constructive distributions) paid to you, your name and address and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of distributions on or of proceeds from the disposition of our securities made to you may be subject to information reporting and backup withholding at a current rate of 24% unless you establish an exemption, for example, by properly certifying your non-U.S. status on an IRS Form W-8BEN or IRS Form W-8BEN-E or other applicable IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance

The Foreign Account Tax Compliance Act (“FATCA”) generally imposes withholding tax at a rate of 30% on dividends on and gross proceeds from the sale or other disposition of our securities paid to a “foreign financial institution” (as specially defined under these rules), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding the U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on and gross proceeds from the sale or other disposition of our securities paid to a “non-financial foreign entity” (as specially defined for purposes of these rules) unless such entity provides the withholding agent with a certification identifying certain substantial direct and indirect U.S. owners of the entity, certifies that there are none or otherwise establishes an exemption.

Withholding under FATCA generally (1) applies to payments of dividends (including constructive dividends) on our securities and (2) unless otherwise provided by the Treasury Secretary, will apply to payments of gross proceeds from a sale or other disposition of our securities. The Treasury Secretary has issued proposed Treasury Regulations, which, if finalized in their present form, would eliminate withholding under FATCA with respect to payment of gross proceeds from a sale or other disposition of our securities. In its preamble to such proposed Treasury Regulations, the U.S. Treasury stated that taxpayers may generally rely on the proposed Treasury Regulations until final regulations are issued. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Under certain circumstances, a holder may be eligible for refunds or credits of the tax. Holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our securities.

Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, owning and disposing of our securities, including the consequences of any proposed changes in applicable laws.

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 the number of shares of our Common Stock outstanding as of September 30, 2020, upon the completion of this Offering, shares of our Common Stock will be outstanding, assuming Units are issued in this Offering and assuming no exercise of the underwriters' over-allotment option, or shares of our Common Stock will be outstanding, assuming Units are issued in this Offering and the underwriters' over-allotment option is exercised in full, based upon an assumed public offering price of \$ per Unit and an assumed closing of the Offering on September 30, 2020.

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:

- 1% of the number of shares of our Common Stock then outstanding, which will equal approximately shares, or approximately shares if the underwriters exercise their over-allotment option in full, immediately following this Offering, based on the number of shares of our Common Stock outstanding as of September 30, 2020; 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 "*Underwriting*" below for a detailed discussion.

UNDERWRITING

Maxim Group LLC is acting as the representative of the underwriters of the Offering (the “Representative”). We have entered into an underwriting agreement dated _____, 2020 with the Representative. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to each underwriter named below and each underwriter named below has severally and not jointly agreed to purchase from us, at the public offering price per Unit less the underwriting discounts set forth on the cover page of this prospectus, the number of Units listed next to its name in the following table:

Underwriter	Number of Units
Maxim Group LLC	
Joseph Gunnar & Co. LLC	
Total	

The underwriters are committed to purchase all the Units offered by us other than those covered by the over-allotment option described below, if any, are purchased. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the Offering may be terminated. The underwriters are not obligated to purchase the securities covered by the underwriters’ over-allotment option described below. The underwriters are offering the Units, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer’s certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Over-Allotment Option

We have granted to the Representative an option, exercisable one or more times in whole or in part, not later than 45 days after the date of this prospectus, to purchase from us up to an (i) additional _____ shares of our Common Stock at a price of \$ _____ per share and/or (ii) additional warrants to purchase _____ shares of Common Stock at a price of \$0.001 per warrant (15% of the shares of Common Stock and warrants included in the Units sold in this Offering), in each case, less the underwriting discounts and commissions set forth on the cover of this prospectus in any combination thereof to cover over-allotments, if any. To the extent that the Representative exercises this option, each of the underwriters will become obligated, subject to conditions, to purchase approximately the same percentage of these additional shares of Common Stock and/or warrants as the number of Units to be purchased by it in the above table bears to the total number of Units offered by this prospectus. We will be obligated, pursuant to the option, to sell these additional shares of Common Stock and/or warrants to the underwriters to the extent the option is exercised. If any additional shares of Common Stock and/or warrants are purchased, the underwriters will offer the additional shares of Common Stock and/or warrants on the same terms as those on which the other Units are being offered hereunder. If this option is exercised in full, the total offering price to the public will be \$ _____ and the total net proceeds, before expenses and after the credit to the underwriting commissions described below, to us will be \$ _____.

Discounts and Commissions; Expenses

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the Representative of the over-allotment option.

	Per Unit	Total Without Over- Allotment Option	Total With Full Over- Allotment Option
Public offering price	\$ _____	\$ _____	\$ _____
Underwriting discount (8.0%) ⁽¹⁾	\$ _____	\$ _____	\$ _____
Proceeds, before expenses, to us	\$ _____	\$ _____	\$ _____

The underwriters propose to offer the Units offered by us to the public at the public offering price per Unit set forth on the cover of this prospectus. In addition, the underwriters may offer some of the Units to other securities dealers at such price less a concession of \$ _____ per Unit. After the initial Offering, the public offering price and concession to dealers may be changed.

We have paid an expense deposit of \$25,000 to the Representative, which will be applied against the accountable expenses that will be paid by us to the Representative in connection with this Offering. The \$25,000 expense deposit will be returned to us to the extent not actually incurred. The underwriting agreement also provides that in the event the Offering is terminated, the \$25,000 expense deposit paid to the Representative will be returned to us to the extent that Offering expenses are not actually incurred by the Representative in accordance with Financial Industry Regulation Authority (“FINRA”) Rule 5110(f)(2)(C).

We have also agreed to reimburse the Representative for reasonable out-of-pocket expenses not to exceed \$125,000 in the aggregate. We estimate that total expenses payable by us in connection with this Offering, other than the underwriting discount, will be approximately \$.

Discretionary Accounts

The underwriters do not intend to confirm sales of the Units offered hereby to any accounts over which they have discretionary authority.

Indemnification

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

Lock-Up Agreements

We and our officers and directors, and the holders of 3.0% or more of the outstanding shares of our Common Stock as of the effective date of the registration statement of which this prospectus is a part, have agreed, subject to limited exceptions, for a period of 180 days after the closing of this Offering, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of our Common Stock or any securities convertible into or exchangeable for our Common Stock either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of the Representative. The Representative may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Pricing of this Offering; Market Information

Prior to this Offering, our Common Stock traded on the OTCQB Marketplace with very limited daily trading volume. The public offering price will be determined by discussions between us and the Representative. In addition to prevailing market conditions, the factors to be considered in these discussions will include:

- an assessment of our management and the underwriters as to the price at which investors might be willing to participate in this Offering;
- the price and trading history (including trading volume of our Common Stock on the OTCQB Marketplace);
- the history of, and prospects for, our company and the industry in which we compete;
- our past and present financial information;
- our past and present operations, and the prospects for, and timing of, our future revenues;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the Offering our Common Stock and warrants will not trade in the public market at or above the public offering price.

Representative's Warrants

We have agreed to issue to the Representative (or its permitted assignees) warrants to purchase up to a total of _____ shares of Common Stock (8.0% of the shares of Common Stock included in the Units, excluding the over-allotment, if any). The warrants will be exercisable at any time, and from time to time, in whole or in part, during the five (5) year period commencing 180 days from the effective date of the registration statement of which this prospectus is a part, which period is in compliance with FINRA Rule 5110(f)(2)(G)(i). The warrants are exercisable at a per share price equal to \$ _____ per share, or 110% of the public offering price per Unit in the Offering (based on the assumed public offering price of \$ _____ per Unit). The warrants have been deemed compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA. The Representative (or permitted assignees under Rule 5110(g)(1)) will not sell, transfer, assign, pledge, or hypothecate these warrants or the securities underlying these warrants, nor will they engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the warrants or the underlying securities for a period of 180 days from the effective date of the registration statement of which this prospectus is a part. In addition, the warrants provide for registration rights upon request, in certain cases. The demand registration rights provided will not be greater than five years from the effective date of the registration statement of which this prospectus in compliance with applicable FINRA rules. The piggyback registration rights provided will not be greater than seven (7) years from the effective date of the registration statement of which this prospectus is a part in compliance with applicable FINRA rules. We will bear all fees and expenses attendant to registering the securities issuable on exercise of the warrants other than fees and expenses associated with a second demand right and underwriting commissions incurred and payable by the holders. The exercise price and number of shares issuable upon exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend, extraordinary cash dividend or our recapitalization, reorganization, merger or consolidation. However, the warrant exercise price or underlying shares will not be adjusted for issuances of shares of Common Stock at a price below the warrant exercise price.

Right of First Refusal

Subject to the closing of this Offering, for a period of twenty-four (24) months after the closing of the Offering, each of Maxim Group LLC ("Maxim") and Joseph Gunnar & Co. LLC ("Joseph Gunnar") shall have a right of first refusal to act as lead managing underwriter and book-runner and/or placement agent for any and all future public or private equity, equity-linked or debt (excluding commercial bank debt) offerings undertaken during such period by us, or any of our successors or subsidiaries, on terms customary to each of the Representative and Joseph Gunnar. In the event that both Maxim and Joseph Gunnar exercise their respective right of first refusal as to the same public equity offering, the economic participation between Maxim and Joseph Gunnar for this right of first refusal on such future public equity offering shall be 50% to Maxim and 50% to Joseph Gunnar. Each of Maxim and Joseph Gunnar in conjunction with us, shall have the sole right to determine whether or not any other broker-dealer shall have the right to participate in any such offering and the economic terms of any such participation.

Trading; NASDAQ Capital Market Listing

Our Common Stock is currently quoted on the OTCQB Marketplace under the symbol "ZIVO." We have applied to list our Common Stock and the warrants offered in the Offering on the Nasdaq Capital Market under the symbols "ZIVO" and "ZIVOW," respectively. No assurance can be given that our listing application will be approved by the Nasdaq Capital Market.

Transfer Agent; Warrant Agent

Issuer Direct Corporation is the registrar and transfer agent for our Common Stock and the warrant agent for the warrants. The business address of Issuer Direct Corporation is 500 Perimeter Park Drive, Suite D, Morrisville, North Carolina 27560, and the telephone number is (919) 481-4000.

Price Stabilization, Short Positions and Penalty Bids

In connection with this Offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act:

- Stabilizing transactions permit bids to purchase securities so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of securities in excess of the number of securities the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriters is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing securities in the open market.

- Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the short position, the underwriters will consider, among other things, the price of securities available for purchase in the open market as compared to the price at which they may purchase securities through the over-allotment option. A naked short position occurs if the underwriters sell more securities than could be covered by the over-allotment option. This position can only be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in this Offering.
- Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when securities originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of the securities. As a result, the price of our shares of Common Stock and warrants may be higher than the price that might otherwise exist in the open market. These transactions may be discontinued at any time.

Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our shares of Common Stock and warrants. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that any transaction, if commenced, will not be discontinued without notice.

Passive Market Making

In connection with this Offering, the underwriters and selling group members may also engage in passive market making transactions in our Common Stock. Passive market making consists of displaying bids limited by the prices of independent market makers and effecting purchases limited by those prices in response to order flow. Rule 103 of Regulation M promulgated by the SEC limits the amount of net purchases that each passive market maker may make and the displayed size of each bid. Passive market making may stabilize the market price of the shares of Common Stock at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by the underwriters, or by their affiliates. Other than this prospectus in electronic format, the information on the underwriters' websites and any information contained in any other websites maintained by the underwriters is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the underwriters in their capacity as underwriters, and should not be relied upon by investors.

Other

From time to time, the underwriters and/or their affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services it has received and, may in the future receive, customary fees. Except for the services provided in connection with this Offering and other than as described below, the underwriters have not provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus.

Notice to Prospective Investors in Canada

This prospectus constitutes an "exempt offering document" as defined in and for the purposes of applicable Canadian securities laws. No prospectus has been filed with any securities commission or similar regulatory authority in Canada in connection with the offer and sale of the securities. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this prospectus or on the merits of the securities and any representation to the contrary is an offence.

Canadian investors are advised that this prospectus has been prepared in reliance on section 3A.3 of National Instrument 33-105 Underwriting Conflicts ("NI 33-105"). Pursuant to section 3A.3 of NI 33-105, this prospectus is exempt from the requirement that the Company and the underwriter(s) provide Canadian investors with certain conflicts of interest disclosure pertaining to "connected issuer" and/or "related issuer" relationships that may exist between the Company and the underwriter(s) as would otherwise be required pursuant to subsection 2.1(1) of NI 33-105.

Resale Restrictions

The offer and sale of the securities in Canada is being made on a private placement basis only and is exempt from the requirement that the Company prepares and files a prospectus under applicable Canadian securities laws. Any resale of securities acquired by a Canadian investor in this Offering must be made in accordance with applicable Canadian securities laws, which may vary depending on the relevant jurisdiction, and which may require resales to be made in accordance with Canadian prospectus requirements, pursuant to a statutory exemption from the prospectus requirements, in a transaction exempt from the prospectus requirements or otherwise under a discretionary exemption from the prospectus requirements granted by the applicable local Canadian securities regulatory authority. These resale restrictions may under certain circumstances apply to resales of the securities outside of Canada.

Representations of Purchasers

Each Canadian investor who purchases securities will be deemed to have represented to the Company, the underwriters and to each dealer from whom a purchase confirmation is received, as applicable, that the investor is (i) purchasing as principal, or is deemed to be purchasing as principal in accordance with applicable Canadian securities laws, for investment only and not with a view to resale or redistribution; (ii) an “accredited investor” as such term is defined in section 1.1 of National Instrument 45-106 Prospectus Exemptions or, in Ontario, as such term is defined in section 73.3(1) of the Securities Act (Ontario); and (iii) is a “permitted client” as such term is defined in section 1.1 of National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations.

Taxation and Eligibility for Investment

Any discussion of taxation and related matters contained in this prospectus does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a Canadian investor when deciding to purchase the securities and, in particular, does not address any Canadian tax considerations. No representation or warranty is hereby made as to the tax consequences to a resident, or deemed resident, of Canada of an investment in the securities or with respect to the eligibility of the securities for investment by such investor under relevant Canadian federal and provincial legislation and regulations.

Rights of Action for Damages or Rescission

Securities legislation in certain of the Canadian jurisdictions provides certain purchasers of securities pursuant to an offering memorandum (such as this prospectus), including where the distribution involves an “eligible foreign security” as such term is defined in Ontario Securities Commission Rule 45-501 Ontario Prospectus and Registration Exemptions and in Multilateral Instrument 45-107 Listing Representation and Statutory Rights of Action Disclosure Exemptions, as applicable, with a remedy for damages or rescission, or both, in addition to any other rights they may have at law, where the offering memorandum, or other offering document that constitutes an offering memorandum, and any amendment thereto, contains a “misrepresentation” as defined under applicable Canadian securities laws. These remedies, or notice with respect to these remedies, must be exercised or delivered, as the case may be, by the purchaser within the time limits prescribed under, and are subject to limitations and defenses under, applicable Canadian securities legislation. In addition, these remedies are in addition to and without derogation from any other right or remedy available at law to the investor.

Language of Documents

Upon receipt of this document, each Canadian investor hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur canadien confirme par les présentes qu’il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d’achat ou tout avis) soient rédigés en anglais seulement.*

European Economic Area and United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom (each a “Relevant State”), no Common Stock has been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the Common Stock which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- to legal entities which are qualified investors as defined under the Prospectus Regulation;

· by the underwriters to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or

· in any other circumstances falling within Article 1(4) of the Prospectus Regulation, provided that no such offer of Common Stock shall result in a requirement for us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer of Common Stock to the public” in relation to any Common Stock in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any Common Stock to be offered so as to enable an investor to decide to purchase or subscribe for our Common Stock, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

United Kingdom

This prospectus has only been communicated or caused to have been communicated and will only be communicated or caused to be communicated as an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act of 2000, or the FSMA) as received in connection with the issue or sale of our Common Stock in circumstances in which Section 21(1) of the FSMA does not apply to us. All applicable provisions of the FSMA will be complied with in respect to anything done in relation to our Common Stock in, from or otherwise involving the United Kingdom.

Offers Outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Honigman LLP, Detroit, Michigan. Gracin & Marlow, LLP, New York, New York, is acting as counsel for the underwriters in this Offering.

EXPERTS

The consolidated financial statements of ZIVO Bioscience, Inc. as of December 31, 2019 and 2018, and for each of the years in the two-year period ended December 31, 2019, have been included herein and in the registration statement, in reliance upon the report of Wolinetz, Lafazan & Co., P.C., our independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2019 consolidated financial statements contains an explanatory paragraph that states that the Company's recurring losses from operations and net capital deficiency raise substantial doubt about the entity's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

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.

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of
ZIVO Bioscience, Inc. and Subsidiaries

Opinion on the Consolidated financial statements

We have audited the accompanying consolidated balance sheets of ZIVO Bioscience, Inc. and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, stockholders' deficiency, and cash flows, for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has incurred significant operating losses for the years ended December 31, 2019 and 2018 and, as of December 31, 2019, has a significant working capital and stockholders' deficiency. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans regarding those matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

WOLINETZ, LAFAZAN & COMPANY, P.C.

We have served as the Company's auditor since 2004.
Rockville Centre, NY
March 26, 2020

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEET

	<u>December 31, 2018</u>	<u>December 31, 2019</u>
ASSETS		
CURRENT ASSETS:		
Cash	\$ 388,891	\$ 346,111
Prepaid Expenses	22,615	23,282
Total Current Assets	<u>411,506</u>	<u>369,393</u>
PROPERTY AND EQUIPMENT, NET	-	-
TOTAL ASSETS	<u>\$ 411,506</u>	<u>\$ 369,393</u>
LIABILITIES AND STOCKHOLDERS' DEFICIT:		
CURRENT LIABILITIES:		
Accounts Payable	\$ 422,426	\$ 1,372,428
Due to Related Party	432,429	-
Loans Payable, Related Parties	176,405	-
Convertible Debentures Payable, less unamortized discounts and debt issuance costs of \$1,562,425 and \$- at December 31, 2018 and 2019, respectively	17,978,215	5,280,342
Accrued Interest	3,674,148	1,952,606
Accrued Liabilities – Other	10,000	102,500
Total Current Liabilities	<u>22,693,623</u>	<u>8,707,876</u>
LONG TERM LIABILITIES:		
	-	-
TOTAL LIABILITIES	<u>22,693,623</u>	<u>8,707,876</u>
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' DEFICIT:		
Common stock, \$.001 par value, 1,200,000,000 shares authorized (700,000,000 as of December 31, 2018); 180,036,435 and 396,736,506 issued and outstanding at December 31, 2018 and 2019, respectively	180,037	396,737
Additional Paid-In Capital	55,985,626	81,222,726
Accumulated Deficit	(78,447,780)	(89,957,946)
Total Stockholders' Deficit	<u>(22,282,117)</u>	<u>(8,338,483)</u>
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	<u>\$ 411,506</u>	<u>\$ 369,393</u>

The accompanying notes are an integral part of these financial statements

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the year ended December 31, 2018	For the year ended December 31, 2019
REVENUE:	\$ -	\$ -
COSTS AND EXPENSES:		
General and Administrative	1,353,319	4,076,439
Professional Fees and Consulting Expense	1,962,333	1,968,878
Research and Development	2,814,991	2,307,033
Total Costs and Expenses	<u>6,130,643</u>	<u>8,352,350</u>
LOSS FROM OPERATIONS	<u>(6,130,643)</u>	<u>(8,352,350)</u>
OTHER INCOME (EXPENSE):		
Amortization of Debt Discount	(903,317)	(374,608)
Financing Costs	(96,595)	-
Finance Costs Paid in Stocks and Warrants	(310,892)	-
Interest Expense – Related Parties	(7,060,383)	(2,676,308)
Interest Expense	<u>(133,537)</u>	<u>(106,900)</u>
Total Other Income (Expense)	<u>(8,504,724)</u>	<u>(3,157,816)</u>
NET LOSS	<u>\$ (14,635,367)</u>	<u>\$ (11,510,166)</u>
BASIC AND DILUTED LOSS PER SHARE	<u>\$ (0.09)</u>	<u>\$ (0.04)</u>
WEIGHTED AVERAGE		
BASIC AND DILUTED SHARES OUTSTANDING	<u>156,678,765</u>	<u>276,396,362</u>

The accompanying notes are an integral part of these financial statements

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY
FOR THE PERIOD JANUARY 1, 2018 THROUGH DECEMBER 31, 2019

	Common Stock		Additional Paid in Capital	Accumulated Deficit	Total
	<u>Shares</u>	<u>Amount</u>			
Balance, January 1, 2018	141,106,061	\$ 141,107	\$ 47,366,814	\$ (63,812,413)	\$ (16,304,492)
Issuance of warrants to board of directors	-	-	384,065	-	384,065
Issuance of warrants for services	-	-	822,001	-	822,001
Issuance of warrants for services – related party	-	-	187,247	-	187,247
Issuance of common stock for cash	34,338,130	34,338	3,399,477	-	3,433,815
Common stock issued on conversion of 11% Convertible Debt and accrued interest	4,035,110	4,035	399,476	-	403,511
Discounts on issuance of 11% convertible debentures	-	-	819,854	-	819,854
Warrants issued for debt issuance costs	-	-	2,542,852	-	2,542,852
Common stock issued for financing costs	557,134	557	63,840	-	64,397
Net loss for the year ended December 31, 2018	<u>-</u>	<u>-</u>	<u>-</u>	<u>(14,635,367)</u>	<u>(14,635,367)</u>
 Balance, December 31, 2018	 <u>180,036,435</u>	 <u>\$ 180,037</u>	 <u>\$ 55,985,626</u>	 <u>\$ (78,447,780)</u>	 <u>\$ (22,282,117)</u>
Issuance of warrants to board of directors	-	-	192,614	-	192,614
Issuance of warrants for services	-	-	759,378	-	759,378
Issuance of warrants and options for services – related party	-	-	2,653,243	-	2,653,243
Issuance of common stock for cash	26,500,000	26,500	2,623,500	-	2,650,000
Common stock issued on warrant exercise	9,688,917	9,689	972,328	-	982,017
Common stock issued on conversion of 11% Loan Payable and accrued interest	3,118,359	3,118	308,718	-	311,836
Common stock issued on conversion of Due to Related Party	4,649,291	4,649	460,280	-	464,929
Common stock issued on conversion of 11% Convertible Debt and accrued interest	172,743,504	172,744	17,101,607	-	17,274,351
Warrants issued for financing costs	-	-	165,432	-	165,432
Net loss for the year ended December 31, 2019	<u>-</u>	<u>-</u>	<u>-</u>	<u>(11,510,166)</u>	<u>(11,510,166)</u>
 Balance, December 31, 2019	 <u><u>396,736,506</u></u>	 <u><u>\$ 396,737</u></u>	 <u><u>\$ 81,222,726</u></u>	 <u><u>\$ (89,957,946)</u></u>	 <u><u>\$ (8,338,483)</u></u>

The accompanying notes are an integral part of these consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF CASH FLOWS

	For the Year Ended December 31, 2018	For the Year Ended December 31, 2019
Cash Flows from Operating Activities:		
Net Loss	\$ (14,635,367)	\$ (11,510,166)
Adjustments to reconcile Net Loss to net cash used in operating activities:		
Stocks and warrants issued for services rendered	822,001	759,378
Issuance of warrants and options for services – related party	187,247	2,653,243
Warrants issued for Directors’ Fees	384,065	192,614
Stocks and warrants issued for financing costs	310,894	165,432
Amortization of debt issuance costs	5,093,001	1,187,817
Amortization of bond discount	903,317	374,608
Changes in assets and liabilities:		
(Increase) in prepaid expenses	(7,473)	(666)
Increase (Decrease) in accounts payable	(119,285)	950,002
(Decrease) in due to related party	(43,405)	-
Increase in accrued liabilities	2,098,419	1,520,441
Net Cash (Used) in Operating Activities	(5,006,586)	(3,707,297)
Cash Flows from Investing Activities:		
Net Cash (Used) in Investing Activities	-	-
Cash Flow from Financing Activities:		
Proceeds from (payments of) loans payable, related parties	(217,614)	32,500
Debt Issuance Costs	(106,658)	-
Proceeds from issuance of 11% convertible debentures	1,968,801	-
Proceeds from exercise of common stock warrants	-	982,017
Proceeds from sales of common stock	3,433,813	2,650,000
Net Cash Provided by Financing Activities	5,078,342	3,664,517
	71,756	(42,780)
Increase (Decrease) in Cash		
Cash at Beginning of Period	317,135	388,891
Cash at End of Period	\$ 388,891	\$ 346,111
Supplemental Disclosures of Cash Flow Information:		
Cash paid during the period for:		
Interest	\$ -	\$ -
Income taxes	\$ -	\$ -

The accompanying notes are an integral part of these consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF CASH FLOWS *(Continued)*

Supplemental Schedule of Non-Cash Investing and Financing Activities:

For the Year Ended December 31, 2019:

During the quarter ended March 31, 2019, \$464,929 of Due to Related Party and Loans Payable – Related Party were converted at \$.10 per share into 4,649,291 shares of the Company's common stock.

During the quarter ended June 30, 2019, \$12,080,298 of 11% Convertible Notes – Related Party, as well as \$2,264,470 in related accrued interest were converted at \$.10 per share into 143,447,677 shares of the Company's common stock.

During the quarter ended September 30, 2019, \$176,405 of Loan Payable, Related Parties and related accrued interest of \$135,431 were converted at \$.10 per share into 3,118,359 shares of the Company's common stock.

During the quarter ended December 31, 2019, \$2,180,000 of 11% Convertible Notes – Related Party, as well as \$749,583 in related accrued interest were converted at \$.10 per share into 29,295,827 shares of the Company's common stock.

During the quarter ended December 31, 2019, a principal shareholder and related party assigned warrants to purchase 8,550,000 shares of the Company's Common Stock to third party investors, such warrants were exercised in the fourth quarter of 2019 at \$.10 per share resulting in the issuance of 8,550,000 shares of common stock for gross proceeds of \$855,000. The Company considered the warrants to be contributed capital from a majority shareholder and recorded equity related finance charges. The warrants were valued at \$820,432 using the Black Scholes pricing model relying on the following assumptions: volatilities ranging from 123.49% to 150.39%; annual rate of dividends 0%; discount rates ranging from 1.58% to 2.55%.

For the Year Ended December 31, 2018:

During the quarter ended March 31, 2018, the Company recorded \$43,520 of discounts on the issuance of \$500,000 of 11% convertible debentures.

During the quarter ended June 30, 2018, the Company recorded \$576,396 of discounts on the issuance of \$1,000,000 of 11% convertible debentures.

During the quarter ended June 30, 2018, \$30,000 of 11% Convertible Notes – Related Party as well as \$9,231 in related accrued interest were converted at \$.10 per share into 392,310 shares of the Company's common stock.

During the quarter ended June 30, 2018, warrants to purchase 30,000,000 shares of the Company's common stock at \$.10 valued at \$3,592,949 were issued. Of the \$3,592,949 in costs, \$2,039,448, representing the amount attributable to the sale of common stock, were recorded as a reduction to Additional Paid in Capital and \$1,553,501, representing the amount attributable to the issuance of 11% convertible debentures, were recorded as Debt Issuance Costs.

During the quarter ended September 30, 2018, the Company recorded \$134,499 of discounts on the issuance of \$330,000 of 11% convertible debentures.

During the quarter ended September 30, 2018, \$300,000 of 11% Convertible Notes as well as \$64,280 in related accrued interest were converted at \$.10 per share into 3,642,800 shares of the Company's common stock.

During the quarter ended December 31, 2018, warrants to purchase 25,000,000 shares of the Company's common stock at \$.10 valued at \$3,377,387 were issued. Of the \$3,377,387 in costs, \$2,585,725, representing the amount attributable to the sale of common stock, were recorded as a reduction to Additional Paid in Capital and \$791,662, representing the amount attributable to the issuance of 11% convertible debentures, were recorded as Debt Issuance Costs.

During the quarter ended December 31, 2018, the Company recorded \$65,439 of discounts on the issuance of \$138,801 of 11% convertible debentures.

The accompanying notes are an integral part of these consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 – DESCRIPTION OF BUSINESS

The business model of ZIVO Bioscience, Inc. and Subsidiaries (Health Enhancement Corporation, HEPI Pharmaceuticals, Inc., Wellmetrix, LLC (fka WellMetris, LLC), and Zivo Biologic, Inc., (collectively the “Company”) is as follows: 1) to derive future income from licensing and selling natural bioactive ingredients derived from their proprietary algae cultures to animal, human and dietary supplement and medical food manufacturers, and 2) developing, manufacturing, marketing, and selling tests that the Company believes will allow people to optimize their health and identify future health risks.

NOTE 2 – BASIS OF PRESENTATION

Going Concern

The Company had a net loss of \$11,510,166 and \$14,635,367 during the years ended December 31, 2019 and 2018, respectively.

In addition, the Company had a working capital deficiency of \$8,338,483 and a stockholders’ deficiency of \$8,338,483 at December 31, 2019. These factors raise substantial doubt about the Company’s ability to continue as a going concern.

There can be no assurance that sufficient funds required during the next year or thereafter will be generated from operations or that funds will be available from external sources such as debt or equity financings or other potential sources. The lack of additional capital resulting from the inability to generate cash flow from operations or to raise capital from external sources would force the Company to substantially curtail or cease operations and would, therefore, have a material adverse effect on its business. Furthermore, there can be no assurance that any such required funds, if available, will be available on attractive terms or that they will not have a significant dilutive effect on the Company’s existing shareholders.

The accompanying consolidated financial statements do not include any adjustments related to the recoverability or classification of asset- carrying amounts or the amounts and classification of liabilities that may result should the Company be unable to continue as a going concern.

The Company is attempting to address its lack of liquidity by raising additional funds, either in the form of debt or equity or some combination thereof. There can be no assurances that the Company will be able to raise the additional funds it requires.

During the year ended December 31, 2019, the Company received proceeds of \$2,650,000 from the issuance of Common Stock, \$982,017 from the exercise of Common Stock Warrants and \$32,500 in proceeds from loans payable – related party.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The consolidated financial statements include the accounts of ZIVO Bioscience, Inc. and its wholly-owned subsidiaries, Health Enhancement Corporation, HEPI Pharmaceuticals, Inc., Wellmetrix, LLC, and Zivo Biologic, Inc. All significant intercompany transactions and accounts have been eliminated in consolidation.

Accounting Estimates

The Company’s consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America, which require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities, at the date of the financial statements and reported amount of revenues and expenses during the reporting period. Due to the inherent uncertainty involved in making estimates, actual results could differ from those estimates. Management uses its best judgment in valuing these estimates and may, as warranted, solicit external professional advice and other assumptions believed to be reasonable.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Cash and Cash Equivalents

For the purpose of the statements of cash flows, cash equivalents include time deposits, certificates of deposit and all highly liquid debt instruments with original maturities of three months or less. The Company maintains cash and cash equivalents balances at financial institutions and are insured by the Federal Deposit Insurance Corporation up to \$250,000. At times, balances in certain bank accounts may exceed the FDIC insured limits. Cash equivalents consist of highly liquid investments with an original maturity of three months or less when purchased. At December 31, 2019, the Company did not have any cash equivalents.

Property and Equipment

Property and equipment consist of furniture and office equipment and are carried at cost less allowances for depreciation and amortization. Depreciation and amortization are determined by using the straight-line method over the estimated useful lives of the related assets. Repair and maintenance costs that do not improve service potential or extend the economic life of an existing fixed asset are expensed as incurred.

Debt Issuance Costs

The Company follows authoritative guidance for accounting for financing costs (as amended) as it relates to convertible debt issuance cost. These costs are deferred and amortized over the term of the debt period or until redemption of the convertible debentures. Debt Issuance Costs are reported on the balance sheet as a direct deduction from the face amount of the related notes. Amortization of debt issuance costs amounted to \$1,187,817 and \$5,093,001 and are included in Interest Expense and Interest Expense – Related Parties on the Consolidated Statements of Operations for the years ended December 31, 2019 and 2018, respectively. Unamortized Debt Issuance Costs in the amounts of \$- and \$1,187,817 are netted against Convertible Notes Payable on the Consolidated Balance Sheets presented in these financial statements as of December 31, 2019 and 2018, respectively.

Revenue Recognition

We will recognize net product revenue when the earnings process is complete and the risks and rewards of product ownership have transferred to our customers, as evidenced by the existence of an agreement, delivery having occurred, pricing being deemed fixed, and collection being considered probable. We will record pricing allowances, including discounts based on contractual arrangements with customers, when we recognize revenue as a reduction to both accounts receivable and net revenue.

For year ended December 31, 2019 and 2018, the Company had no revenue.

Shipping and Handling Costs

Shipping and handling costs are expensed as incurred. For the years ended December 31, 2019 and 2018 no shipping and handling costs were incurred.

Research and Development

Research and development costs are expensed as incurred. The majority of the Company's research and development costs consist of clinical study expenses. These consist of fees, charges, and related expenses incurred in the conduct of clinical studies conducted with Company products by independent outside contractors. External clinical studies expenses were \$2,307,033 and \$2,814,991 for the years ended December 31, 2019 and 2018, respectively.

Income Taxes

The Company follows the authoritative guidance for accounting for income taxes. Deferred income taxes are determined using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

The tax effects of temporary differences that gave rise to the deferred tax assets and deferred tax liabilities at December 31, 2019 and 2018 were primarily attributable to net operating loss carry forwards. Since the Company has a history of losses, and it is more likely than not that some portion or all of the deferred tax assets will not be realized, a full valuation allowance has been established. In addition, utilization of net operating loss carry-forwards is subject to a substantial annual limitation due to the “change in ownership” provisions of the Internal Revenue Code. The annual limitation may result in the expiration of net operating loss carry-forwards before utilization.

We have adjusted Deferred Tax Assets and Liabilities in accordance with the December 22, 2017 enactment of the U.S. Tax Cuts and Jobs Act. (See Note 11 – Income Taxes).

Stock Based Compensation

We account for stock-based compensation in accordance with FASB ASC 718, *Compensation – Stock Compensation*. Under the provisions of FASB ASC 718, stock-based compensation cost is estimated at the grant date based on the award’s fair value and is recognized as expense over the requisite service period. The Company, from time to time, issues common stock or grants common stock options and warrants to its employees, consultants and board members. At the date of grant, the Company determines the fair value of the stock option award and recognizes compensation expense over the requisite service period. Issuances of common stock are valued at the closing market price on the date of issuance and the fair value of any stock option or warrant awards is calculated using the Black Scholes option pricing model.

During 2019 and 2018, options and warrants were granted to employees, directors and consultants of the Company. As a result of these grants, the Company recorded compensation expense of \$3,605,235 and \$1,393,313 during the years ended December 31, 2019 and 2018 respectively.

The fair value of options and warrants were estimated on the date of grant using the Black-Scholes option-pricing model based on the following weighted average assumptions:

Year Ended December 31,

	<u>2019</u>	<u>2018</u>
Expected volatility	150.34% to 186.77%	176.10% to 180.13%
Expected dividends	0%	0%
Expected term	5 to 10 years	5 years
Risk free rate	1.58% to 2.55%	2.65% to 2.96%

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company’s employee options and warrants have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, in management’s opinion the existing models may not necessarily provide a reliable single measure of the fair value of the warrants.

Income (Loss) Per Share

Basic loss per share is computed by dividing the Company’s net loss by the weighted average number of common shares outstanding during the period presented. Diluted loss per share is based on the treasury stock method and includes the effect from potential issuance of common stock such as shares issuable pursuant to the exercise of options and warrants and conversions of debentures. Potentially dilutive securities as of December 31, 2019, consisted of 73,871,688 common shares from convertible debentures and related accrued interest and 223,204,339 common shares from outstanding options and warrants. Potentially dilutive securities as of December 31, 2018, consisted of 232,333,598 common shares from convertible debentures and related accrued interest and 192,148,956 common shares from outstanding options and warrants. For 2019 and 2018, diluted and basic weighted average shares were the same, as potentially dilutive shares are anti-dilutive.

Advertising Costs

Advertising costs are charged to operations when incurred. There were no Advertising Costs during the years 2019 and 2018.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents. The Company has historically maintained cash balances at financial institutions which exceed the current Federal Deposit Insurance Corporation (“FDIC”) limit of \$250,000 at times during the year.

Reclassifications

Certain items in these consolidated financial statements have been reclassified to conform to the current period presentation.

Recently Enacted Accounting Standards

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. 2014-09 (ASU 2014-09), “*Revenue from Contracts with Customers*.” ASU 2014-09 superseded the revenue recognition requirements in “Revenue Recognition (Topic 605),” and requires entities to recognize revenue when it transfers promised goods or services to customers in an amount that reflect the consideration to which the entity expects to be entitled to in exchange for those goods or services. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period. Historically the Company has had no revenues.

In February 2016, the FASB issued ASU No. 2016-02, Leases, to require lessees to recognize all leases, with limited exceptions, on the balance sheet, while recognition on the statement of operations will remain similar to current lease accounting. The ASU also eliminates real estate-specific provisions and modifies certain aspects of lessor accounting. Subsequently, the FASB issued ASU No. 2018-10, Codification Improvements to Topic 842, ASU No. 2018-11, Targeted Improvements, and ASU No. 2018-20, Narrow-Scope Improvements for Lessors, to clarify and amend the guidance in ASU No. 2016-02.

The Company has adopted both of the ASUs on January 1, 2019. Prior comparative periods were not required to be restated and the ASUs have not had an impact on the Company’s consolidated financial statements.

NOTE 4 – PROPERTY AND EQUIPMENT

Property and equipment at December 31, 2019 and 2018 consist of the following:

	December 31, 2019	December 31, 2018
Furniture & fixtures	\$ 20,000	\$ 20,000
Equipment	80,000	80,000
	<u>100,000</u>	<u>100,000</u>
Less accumulated depreciation and amortization	<u>(100,000)</u>	<u>(100,000)</u>
	<u>\$ -</u>	<u>\$ -</u>

There were no depreciation and amortization expenses for the years ended December 31, 2019 and 2018, respectively.

NOTE 5 – DUE TO RELATED PARTY

As of January 1, 2018, the Company owed HEP Investments, LLC, a related party \$475,834 pursuant to the terms an agreement with HEP Investments. The origin of the payable was a 5.4% cash finance fee for monies invested in the Company in the form of convertible debt (see Note 7). During the year ended December 31, 2018, as a result of various financings HEP Investments earned an additional \$96,595 in finance fees. In the same year the Company paid \$140,000 in cash for a balance due to related party on December 31, 2018 of \$432,429.

During the year ended December 31, 2019 the company borrowed an additional \$110,500 in working capital. The total of \$542,929 was repaid with cash of \$78,000 and \$464,929 by issuing 4,649,291 shares of common stock at \$.10 per share.

NOTE 5 – DUE TO RELATED PARTY (CONTINUED)

For the years ended December 31, 2019 and 2018, the Company incurred additional finance costs related to these transactions of \$-0- and \$96,595, respectively.

NOTE 6 – LOAN PAYABLE, RELATED PARTIES

Christopher Maggiore

On January 1, 2018 the Company owed Mr. Christopher Maggiore, a director and significant shareholder \$176,405 as a result of cash advances for continuing operations. During the year ended December 31, 2018, Mr. Maggiore advanced an additional \$500,000 to the Company, which he then converted to 5,000,000 units of the Company at \$.10 per unit. Each unit consisted of share of common stock and warrants to purchase 20% of one share of common stock at an exercise price of \$.10 per share (1,000,000 warrants). As of December 31, 2018, the Company owed Mr. Maggiore \$176,405 in principal and accrued interest of \$111,369.

During the year ended December 31, 2019, Mr. Maggiore converted the principal balance of \$176,405 and accrued interest of \$135,431 at \$.10 per share into 3,118,359 units of the Company at \$.10 per unit. Each unit consisted of one share of common stock and five-year warrants to purchase 20% of one share of common stock (623,672 warrants) at \$.10 per share. As of December 31, 2019, there were no outstanding loans payable to Maggiore.

During the December 31, 2019 and 2018, interest expense on this indebtedness was \$40,364 and \$45,172, respectively.

HEP Investments, LLC

In addition to amounts owed to HEP Investments pursuant to Convertible Debt (see Note 7), as of January 1, 2018, the Company owed HEP Investments \$217,614. During the year ended December 31, 2018, HEP Investments loaned the Company an additional \$1,751,187. Pursuant to the terms of the agreement with HEP Investments, \$1,968,801 of these loans were used to purchase 11% Convertible Secured Promissory Notes, leaving a remaining loan balance of \$-0- as of December 31, 2019 and December 31, 2018.

NOTE 7 – CONVERTIBLE DEBT

HEP Investments, LLC – Related Party

On December 2, 2011, the Company and HEP Investments, LLC, a Michigan limited liability company (the “Lender”), entered into the following documents, effective as of December 1, 2011, as amended through May 16, 2018: (i) a Loan Agreement under which the Lender has agreed to advance up to \$20,000,000 to the Company, subject to certain conditions, (ii) a Convertible Secured Promissory Note in the principal amount of \$20,000,000 (“Note”) (of which \$18,350,640 has been advanced as of December 31, 2018), (iii) a Security Agreement, under which the Company granted the Lender a security interest in all of its assets, (iv) issue the Lender warrants to purchase 1,666,667 shares of common stock at an exercise price of \$.12 per share (including a cashless exercise provision) which expired September 30, 2016 (from the original December 1, 2011 agreement), (v) enter into a Registration Rights Agreement with respect to all the shares of common stock issuable to the Lender in connection with the Loan transaction, in each case subject to completion of funding of the full \$2,000,000 called for by the Loan Agreement, and (vi) an Intellectual Property security agreement under which the Company and its subsidiaries granted the Lender a security interest in all their respective intellectual properties, including patents, in order to secure their respective obligations to the Lender under the Note and related documents. In addition, the Company’s subsidiaries have guaranteed the Company’s obligations under the Note. The Company has also made certain agreements with the Lender which shall remain in effect as long as any amount is outstanding under the Loan. These agreements include an agreement not to make any change in the Company’s senior management, without the prior written consent of the Lender. Two representatives of the Lender will have the right to attend Board of Director meetings as non-voting observers.

NOTE 7 – CONVERTIBLE DEBT (CONTINUED)

On January 31, 2018, the Company and the Lender entered into the following documents, effective as of January 31, 2018: (i) Ninth Amendment to Loan Agreement under which the Lender has agreed to advance up to a total of \$17,500,000 to the Company, subject to certain conditions, and (ii) a Tenth Amended and Restated Senior Secured Convertible Promissory Note. The Ninth Amendment to Loan Agreement amends and restates the Eighth Amendment to Loan Agreement, which was entered into with the Lender on March 1, 2017 and disclosed in the Company's Form 8-K Current Report filed on March 6, 2017. The Tenth Amended and Restated Senior Secured Convertible Promissory Note extends the maturity date for all convertible debt due to HEP Investments to April 1, 2019, including the payment of any interest due and owing at that time. In consideration for extending the maturity date of the Loan to April 1, 2019 in accordance with the Tenth Amended and Restated Senior Convertible Promissory Note, the Company agreed to issue to the Lender warrants to purchase 3,250,000 shares of common stock at an exercise price of \$.10 with a term of 5 years. The warrants were valued at \$246,496 using the Black Scholes pricing model relying on the following assumptions: volatility 175.81%; annual rate of dividends 0%; discount rate 2.41%. The Company determined that the modification of these Notes was not a substantial modification in accordance with ASC 470-50, "Modifications and Extinguishments."

On April 12, 2018, the Lender converted \$30,000 of the debt and \$9,231 of accrued interest into 392,310 shares of the Company's common stock (at \$.10 per share).

On April 30, 2018, the Board of Directors approved the issuance to the Lender of a warrant to purchase 50 million shares of common stock at an exercise price of \$.10 for a term of five years on the basis of \$4 million funding through a combination of sales of common stock and the issuances of 11% convertible notes (at a conversion price of \$.10) to HEP Investments. This warrant is in addition to 10% warrant coverage (five-year term) provided to the Lender in connection with investments in convertible debt pursuant to existing agreements. A warrant for 25 million shares of common stock at an exercise price of \$.10 for a term of five years was issued on June 6, 2018 as \$2 million of the related \$4 million funding was complete. A portion of the warrant has a cashless exercise provision. The related issued warrants were valued at \$3,116,485 using the Black Scholes pricing model relying on the following assumptions: volatility 175.02%; annual rate of dividends 0%; discount rate 2.77%. The Company recorded \$2,039,448 of these costs, which represents the amount attributable to the sale of common stock, as a reduction to additional paid-in-capital and \$1,077,037 was recorded as a Debt Issuance Cost on the Company's Balance Sheet as a direct deduction of 11% convertible notes payable.

On May 16, 2018, the Company and the Lender, entered into the following documents, effective as of May 16, 2018: (i) Tenth Amendment to Loan Agreement under which the Lender has agreed to advance up to a total of \$20,000,000 to the Company, subject to certain conditions, and (ii) an Eleventh Amended and Restated Senior Secured Convertible Promissory Note. The Tenth Amendment to Loan Agreement amends and restates the Ninth Amendment to Loan Agreement, which was entered into with the Lender on January 31, 2018 and disclosed in the Company's Form 8-K Current Report filed on May 18, 2018. The Eleventh Amended and Restated Senior Secured Convertible Promissory Note increased amount that the Lender can advance to \$20,000,000. In consideration for increasing the advance amount to \$20,000,000 in accordance with the Eleventh Amended and Restated Senior Convertible Promissory Note, the Company agreed to issue to the Lender warrants to purchase 5,000,000 shares of common stock at an exercise price of \$.10 with a term of 5 years. The warrants were valued at \$476,464 using the Black Scholes pricing model relying on the following assumptions: volatility 174.80%; annual rate of dividends 0%; discount rate 2.94%. The Company determined that the modification of these Notes was not a substantial modification in accordance with ASC 470-50, "Modifications and Extinguishments."

On June 6, 2018 the Lender and Strome Mezzanine Fund LP and Strome Alpha Fund LP ("Participant") entered into the First Amended and Restated Participation Agreement (amending the June 17, 2017 agreement) whereby the Participant agreed to fund a total of \$691,187 ("the committed funding"), through the Lender's 11% convertible note (at a conversion price of \$.10). The Company also agreed to a "Right of First Refusal" (ROFR) with the Participant. The Company would give the Participant the ROFR to invest funds into the Company on the same terms and conditions ("Right of Participation") as negotiated by the Company with a third party, provided that the Right of Participation must be exercised within 10 days. Certain exclusions apply relating to the committed funding from parties unrelated to the Participant. This ROFR terminates on the third (3) anniversary of the Agreement. The Participant has an agreement with the Lender and the Company, that upon the funding of the Participant's full \$2 million (\$1,308,813 through the purchase of common stock from the Company and \$691,187 through the purchase of HEP Investments' 11% convertible note (at a conversion price of \$.10)), a warrant for 25 million shares of common stock at an exercise price of \$.10 for a term of five years would be allocated from the warrant for 50 million shares of common stock authorized in the April 30, 2018 Board of Directors Resolution. The total funding of \$2 million was achieved on June 6, 2018.

NOTE 7 – CONVERTIBLE DEBT (CONTINUED)

During the year ended December 31, 2018, the Company recorded debt discounts, related to \$1,968,801 of Notes in the amount of \$819,854 to reflect the relative fair value of the related warrants pursuant to “FASB ASC 470-20-30 – Debt with Conversion and Other Options: Beneficial Conversion Features” (ASC 470-20) as a reduction to the carrying amount of the convertible debt and an addition to additional paid-in capital. In accordance with ASC 470-20, the Company valued the beneficial conversion feature and recorded the amount of \$613,758 as a reduction to the carrying amount of the convertible debt and as an addition to paid-in capital. Additionally, the relative fair value of the warrants was calculated and recorded at \$206,096 as a further reduction to the carrying amount of the convertible debt and an addition to additional paid-in capital. The Company is amortizing the debt discount over the term of the debt. The relative fair value of the debt discounts of \$206,096 were calculated using the Black Scholes pricing model relying on the following assumptions: volatility 174.59% to 180.14%; annual rate of dividends 0%; discount rate 2.09% to 3.04% The Company is amortizing the debt discount over the term of the debt. Amortization of the debt discounts were \$903,317 for the year ended December 31, 2018.

The Company amortized the debt discount over the term of the debt. Amortization of the debt discounts were \$374,608 and \$903,317 for the years ended December 31, 2019 and December 31, 2018, respectively

On March 29, 2019, the Company and the Lender entered into a “Debt Extension Agreement” whereby the Lender extended the maturity date of the Note to June 30, 2019. The Lender received no additional consideration related to this debt extension. The Company determined that the modification of these Notes was not a substantial modification in accordance with ASC 470-50, “Modifications and Extinguishments.”

In October 2019, the Company issued to the Lender a warrant to purchase 2,000,000 shares of common stock at an exercise price of \$.10 with a term of 5 years. The warrants were valued at \$165,432 using the Black Scholes pricing model relying on the following assumptions: volatility 156.60%; annual rate of dividends 0%; discount rate 1.64%.

During the year ended December 31, 2019, the Lender converted \$14,260,298 of the debt and \$3,014,052 of accrued interest into 172,743,505 shares of the Company’s common stock (at \$.10 per share).

As of December 31, 2019, the total shares of common stock, if the Lender converted the complete \$4,090,342 convertible debt, including related accrued interest of \$1,522,071, would be 56,166,406 shares, not including any future interest charges which may be converted into common stock.

As of December 31, 2019, the Company has not made the required annual interest payments and principal payments to the Lender. As the Company has not received a notice of default, pursuant to the terms of the Notes, the Company does not currently consider itself in default. Were the Company to default, additional interest would accrue at a rate of 16% per annum.

Paulson Investment Company, LLC - Related Debt

On August 24, 2016, the Company entered into a Placement Agent Agreement with Paulson Investment Company, LLC (Paulson). The agreement provided that Paulson could provide up to \$2 million in financings through “accredited investors” (as defined by Regulation D of the Securities Act of 1933, as amended). As of December 31, 2016, the Company received funding of \$1,250,000 through seven (7) individual loans (the “New Lenders”). Each loan included a (i) a Loan Agreement of the individual loan, (ii) a Convertible Secured Promissory Note (“New Lenders Notes”) in the principal amount of the loan, (iii) a Security Agreement under which the Company granted the Lender a security interest in all of its assets and (iv) an Intercreditor Agreement with HEP Investments, LLC (HEP) whereby HEP and the New Lenders agree to participate in all collateral on a *pari passu* basis. The loans have a two-year term and mature in September 2018 (\$600,000) and October 2018 (\$650,000). Paulson received a 10% cash finance fee for monies invested in the Company in the form of convertible debt, along with 5 year, \$.10 warrants equal to 15% of the number of common shares for which the debt is convertible into at \$.10 per share.

On September 24, 2018, one New Lender converted \$300,000 of the debt and \$64,280 of accrued interest into 3,642,800 shares of the Company’s common stock (at \$.10 per share). On May 8, 2019, one of the New Lenders bought the note of another New Lender.

The New Lenders Notes are convertible into the Company’s restricted common stock at \$.10 per share and bear interest at the rate of 11% per annum. The Company is in discussions through intermediaries with the remaining three (3) New Lenders to determine their intentions.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 7 – CONVERTIBLE DEBT (CONTINUED)

The New Lenders Notes must be repaid as follows: accrued interest must be paid on the first and second anniversary of the Note and unpaid principal not previously converted into common stock must be repaid on the second anniversary of the Note. As of December 31, 2019, the Company has not made the required annual interest payments to five (5) New Lenders and is in default.

On January 15, 2020, two New Lenders converted \$100,000 of the debt and \$36,225 of accrued interest into 1,362,246 shares of the Company’s common stock (at \$.10 per share) (see Note 12 – Subsequent Events). As the Company has not received notices of default, pursuant to the terms of the Notes, we do not currently consider ourselves in default to the three (3) remaining investors. Were the Company to be considered in default, additional interest would accrue at a rate of 16% per annum.

Other Debt

In September 2014, the Lender of the 1% convertible debentures agreed to rolling 30-day extensions until notice is given to the Company to the contrary. As of December 31, 2019, that agreement is still in place. The Company determined that the modification of these Notes is not a substantial modification in accordance with ASC 470-50, “Modifications and Extinguishments.”

Convertible debt consists of the following:

	December 31, 2019	December 31, 2018
1% Convertible notes payable, due January 2020	\$ 240,000	\$ 240,000
11% Convertible note payable – HEP Investments, LLC, a related party, net of unamortized discount and debt issuance costs of \$-0- and \$1,562,425, respectively, due June 30, 2019 (as of December 31, 2019 no notice of default has been received)	4,090,342	16,788,215
11% Convertible note payable – New Lenders; placed by Paulson, due at various dates ranging from September 2018 to October 2019 (as of December 31, 2019 no notice of default has been received)	950,000	950,000
	5,280,342	17,978,215
Less: Current portion	5,280,342	17,978,215
Long term portion	\$ -	\$ -

As of December 31, 2019, there were no unamortized debt discounts or debt issuance costs included in Notes Payable. As of December 31, 2018, the reductions to Notes Payable of \$1,562,425 consisted of, unamortized discounts of \$374,608 and debt issuance costs of \$1,187,817.

Amortization of debt discounts was \$374,608 and \$903,317 for the year ended December 31, 2019 and 2018, respectively.

NOTE 8 - STOCKHOLDERS’ DEFICIENCY

Recapitalization

On May 1, 2019, the shareholders of the Company voted for approval and adoption of an amendment to the Articles of Incorporation, as amended, to increase the number of authorized shares of common stock from 700,000,000 shares to 1,200,000,000 shares. The Certificate of Amendment to the Articles of Incorporation has been filed with the Secretary of State of Nevada.

Board of Directors fees

On September 28, 2018, the board of directors granted to each of its directors warrants to purchase 500,000 shares of common stock at an exercise price of \$.14 per share. The warrants have a term of five years and vest immediately. The warrants were valued at \$384,065 using the Black Scholes pricing model relying on the following assumptions: volatility 178.54%; annual rate of dividends 0%; discount rate 2.96%. In addition, each director is entitled to receive \$10,000 for each annual term served.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 8 - STOCKHOLDERS' DEFICIENCY (CONTINUED)

On September 26, 2019, the board of directors granted to each of its directors warrants to purchase 500,000 shares of common stock at an exercise price of \$.08 per share. The warrants have a term of five years and vest immediately. The warrants were valued at \$192,614 using the Black Scholes pricing model relying on the following assumptions: volatility 185.11%; annual rate of dividends 0%; discount rate 1.66%. In addition, each director is entitled to receive \$10,000 for each annual term served.

The Company recorded directors' fees of \$232,614 and \$424,065 for the years ended December 31, 2019 and 2018, respectively, representing the cash fees and the value of the vested warrants described above.

Stock Based Compensation

During the year ended December 31, 2018, pursuant to Board of Directors authorization, the Company issued warrants to purchase 1,000,000 shares of common stock at an exercise price of \$.11 with a term of 5 years to a consultant (Executive Director of Asia Operations – see Note 10 – Related Party Transactions). The warrants were valued at \$163,798 using the Black Scholes pricing model relying on the following assumptions: volatility 176.10%; annual rate of dividends 0%; discount rate 2.77%. Further, the Company issued warrants to purchase 5,334,081 shares of common stock at an exercise price of \$.12 with a term of 5 years to an investment banker (see Note 8 – Stockholders' Deficiency: Investment Banking, M&A and Corporate Advisory Agreement). The warrants were valued at \$619,511 using the Black Scholes pricing model relying on the following assumptions: volatility 177.09% to 180.13%; annual rate of dividends 0%; discount rate 2.65% to 2.69%.

In May 2019, in connection with a Supply Consulting Agreement, the Company issued a warrant to purchase 5,000,000 shares of common stock at an exercise price of \$.08 for a term of five years. The warrants were valued at \$529,023 using the Black Scholes pricing model relying on the following assumptions: volatility 181.49%; annual rate of dividends 0%; discount rate 2.34% (See Note 9 – Commitments and Contingencies: Supply Chain Consulting Agreement). In October 2019, 2,000,000 of those warrants were returned to the Company resulting in a reduction in the value of \$211,609. In August 2019, the Company issued warrants to purchase 3,000,000 shares of common stock at an exercise price of \$.10 with a term of 5 years pursuant to an agreement with a financial consultant. The warrants were valued at \$231,032 using the Black Scholes pricing model relying on the following assumptions: volatility 184.75%; annual rate of dividends 0%; discount rate 1.58%. In October 2019, the Company issued a warrant to purchase 1,000,000 shares of common stock at an exercise price of \$.10 with a term of 5 years pursuant to an agreement with a development consultant. The warrants were valued at \$129,762 using the Black Scholes pricing model relying on the following assumptions: volatility 150.34%; annual rate of dividends 0%; discount rate 2.55%. In December 2019, the Company issued warrants to purchase 400,000 shares of common stock at an exercise price of \$.18 with a term of 5 years pursuant to an agreement with a financial consultant. The warrants were valued at \$61,424 using the Black Scholes pricing model relying on the following assumptions: volatility 184.10%; annual rate of dividends 0%; discount rate 1.68%.

Stock Issuances

During the year ended December 31, 2018, in connection with the issuance of \$1,968,800 in principal of 11% Convertible Debenture the Company issued to HEP Investments 552,672 shares of common stock valued at \$64,397 and various five-year warrants to purchase 1,543,801 shares of common stock at an exercise price of \$.10 per share (see Note 7 – Convertible Debt). In addition, the Company received proceeds of \$3,433,813 from the issuance of 34,338,129 shares of common stock at \$.10 per share.

During the year ended December 31, 2019, the Company issued 26,500,000 shares of its common stock at \$.10 per share, for proceeds of \$2,650,000. Of this amount, 20,500,000 shares (\$2,050,000 of proceeds) were issued to private investors and 6,450,000 shares (\$645,000 of proceeds) were issued to HEP Investments, a related party. The Company also issued to HEP Investments warrants to purchase 1,060,000 shares of common stock at an exercise price of \$.10 with a term of 5 years in connection with the issuances. Investors exercised 9,688,917 common stock warrants, at an average price of \$.10 per share, for proceeds of \$982,017. HEP Investments, a related party, exercised 618,750 of those warrants at an average of \$.08 per share, representing \$50,000 of the proceeds.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 8 - STOCKHOLDERS' DEFICIENCY (CONTINUED)

Stock Warrants Exercised

During the year ended December 31, 2019, HEP Investments, a principal shareholder and related party, assigned warrants to purchase 8,550,000 shares of the Company's Common Stock to third party investors. These warrants were exercised in the fourth quarter at \$.10 per share resulting in a capital raise of \$855,000. Due to nature of this transaction, the Company considered the warrants to be contributed capital from a majority shareholder and recorded equity related finance charges. The warrants were valued at \$820,432 using the Black Scholes pricing model relying on the following assumptions: volatilities ranging from 123.49% to 150.39%; annual rate of dividends 0%; discount rates ranging from 1.58% to 2.55%.

2019 Omnibus Long-Term Incentive Plan

On November 29, 2019, after approval from the Board, the Company entered into and adopted the 2019 Omnibus Long-Term Incentive Plan (the "2019 Incentive Plan") for the purpose of enhancing the Registrant's ability to attract and retain highly qualified directors, officers, key employees and other persons and to motivate such persons to improve the business results and earnings of the Company by providing an opportunity to acquire or increase a direct proprietary interest in the operations and future success of the Company. The 2019 Incentive Plan will be administered by the compensation committee of the Board who will, amongst other duties, have full power and authority to take all actions and to make all determinations required or provided for under the 2019 Incentive Plan. Pursuant to the 2019 Incentive Plan, the Company may grant options, share appreciation rights, restricted shares, restricted share units, unrestricted shares and dividend equivalent rights. The Plan has a duration of 10 years.

Subject to adjustment as described in the 2019 Incentive Plan, the aggregate number of common shares ("Shares") available for issuance under the 2019 Incentive Plan is One Hundred Two Million (102,000,000) Shares. The exercise price of each Share subject to an Option (as defined in the 2019 Incentive Plan) shall be at least the Fair Market Value (as defined in the 2019 Incentive Plan) (except in the case of a more than 10% shareholder of the Company, in which case the price should not be less than 110% of the Fair Market Value) on the date of the grant of a Share and shall have a term of no more than ten years. As of December 31, 2019, 29 million Options have been issued to the Chief Executive Officer (see Note 9 – Commitments and Contingencies: Employment Agreement).

Common Stock Options

A summary of the status of the Company's Options related to the 2019 Incentive Plan is presented below:

	December 31, 2019	
	Number of Warrants	Weighted Average Exercise Price
Outstanding, beginning of year	-	\$ -
Issued	29,000,000	0.10
Outstanding, end of period	29,000,000	\$ 0.10

NOTE 8 - STOCKHOLDERS' DEFICIENCY (CONTINUED)

Options outstanding and exercisable by price range as of December 31, 2019 were as follows:

Outstanding Options			Exercisable Options		
Range of	Number	Average Weighted Remaining Contractual Life in Years	Exercise Price	Number	Weighted Average Exercise Price
\$ 0.10	28,000,000	9.88	\$ 0.10	28,000,000	\$ 0.10
0.14	1,000,000	9.94	0.14	1,000,000	0.14
	<u>29,000,000</u>	<u>9.88</u>		<u>29,000,000</u>	<u>\$ 0.10</u>

Executive Compensation

As compensation for serving as Chief Financial Officer, the Company, quarterly, issues warrants to purchase 50,000 shares of common stock to Philip M. Rice at the prevailing market price with a term of 5 years, provided that the preceding quarterly and annual filings were submitted in a timely and compliant manner, at which time such warrants would vest.

On February 21, 2018, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.11. The warrants were valued at \$5,255 using the Black Scholes pricing model relying on the following assumptions: volatility 177.09%; annual rate of dividends 0%; discount rate 2.69%. On April 23, 2018, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.10. The warrants were valued at \$4,762 using the Black Scholes pricing model relying on the following assumptions: volatility 174.51%; annual rate of dividends 0%; discount rate 2.83%. On August 14, 2018, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.12. The warrants were valued at \$5,737 using the Black Scholes pricing model relying on the following assumptions: volatility 177.70%; annual rate of dividends 0%; discount rate 2.77%. On November 14, 2018, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.14. The warrants were valued at \$7,695 using the Black Scholes pricing model relying on the following assumptions: volatility 180.26%; annual rate of dividends 0%; discount rate 2.95%.

During the year ended December 31, 2018, the Company issued the following warrants pursuant to offers of employment with three employees: 1) to purchase 500,000 shares of common stock at an exercise price of \$.10 with a term of 5 years (these warrants were valued at \$33,045 using the Black Scholes pricing model relying on the following assumptions: volatility 175.59%; annual rate of dividends 0%; discount rate 2.36%), 2) to purchase 500,000 shares of common stock at an exercise price of \$.11 with a term of 5 years (these warrants were valued at \$81,897 using the Black Scholes pricing model relying on the following assumptions: volatility 176.04%; annual rate of dividends 0%; discount rate 2.81%); and 3) to purchase 1,000,000 shares of common stock at an exercise price of \$.11 with a term of 5 years (these warrants were valued at \$163,798 using the Black Scholes pricing model relying on the following assumptions: volatility 176.10%; annual rate of dividends 0%; discount rate 2.77%). These warrants will vest one year from issuance (June 19, 2019) (the Company has recorded \$19,745 and \$ 87,508 as stock-based compensation during year ended December 31, 2019 and 2018, respectively).

On February 12, 2019, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.10. The warrants were valued at \$4,766 using the Black Scholes pricing model relying on the following assumptions: volatility 180.46%; annual rate of dividends 0%; discount rate 2.53%. On May 13, 2019, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.10. The warrants were valued at \$4,800 using the Black Scholes pricing model relying on the following assumptions: volatility 181.72%; annual rate of dividends 0%; discount rate 2.18%. On August 7, 2019, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.08. The warrants were valued at \$3,850 using the Black Scholes pricing model relying on the following assumptions: volatility 184.57%; annual rate of dividends 0%; discount rate 1.59%. On October 28, 2019, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.08. The warrants were valued at \$3,859 using the Black Scholes pricing model relying on the following assumptions: volatility 186.77%; annual rate of dividends 0%; discount rate 1.66%.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 8 - STOCKHOLDERS' DEFICIENCY (CONTINUED)

Common Stock Warrants

A summary of the status of the Company's warrants is presented below.

	December 31, 2019		December 31, 2018	
	Number of Warrants	Weighted Average Exercise Price	Number of Warrants	Weighted Average Exercise Price
Outstanding, beginning of year	192,148,956	\$ 0.09	119,301,754	\$ 0.09
Issued	12,783,672	0.10	74,377,862	0.10
Exercised	(9,688,917)	0.10	-	-
Cancelled	(345,205)	0.11	-	-
Expired	(694,167)	0.17	(1,530,660)	0.26
Outstanding, end of period	194,204,339	\$ 0.09	192,148,956	\$ 0.09

Warrants outstanding and exercisable by price range as of December 31, 2019 were as follows:

Outstanding Warrants			Exercisable Warrants		
Range of	Number	Average Weighted Remaining Contractual Life in Years	Exercise Price	Number	Weighted Average Exercise Price
\$ 0.05	1,250,000	1.70	\$ 0.05	1,250,000	\$ 0.05
0.06	16,050,000	2.59	0.06	16,050,000	0.06
0.07	3,000,000	2.70	0.07	3,000,000	0.07
0.08	36,905,977	2.18	0.08	36,905,977	0.08
0.09	704,833	2.53	0.09	704,833	0.09
0.10	131,038,734	4.13	0.10	131,038,734	0.10
0.11	2,204,795	4.42	0.11	2,204,795	0.11
0.12	100,000	3.12	0.12	100,000	0.12
0.14	2,550,000	4.67	0.14	2,550,000	0.14
0.18	400,000	0.37	0.18	400,000	0.18
	194,204,339	4.34		194,204,339	\$ 0.09

NOTE 9- COMMITMENTS AND CONTINGENCIES

Employment Agreement

On November 29, 2019, the Company entered into an amended and restated employment agreement with Andrew Dahl, Chief Executive Officer of the Company (“Mr. Dahl’s Employment Agreement” or the “Agreement”). Under the terms of Mr. Dahl’s Employment Agreement, Mr. Dahl will serve as chief executive officer of the Company for three years, with successive automatic renewals for one year terms, unless either party terminates the Agreement on at least sixty days’ notice prior to the expiration of the then current term of Mr. Dahl’s Employment Agreement. Mr. Dahl will receive an annual base salary, commencing on June 1, 2019, of \$440,000 (“Base Salary”), of which \$7,500 per month will be deferred until either of the following events occur: (i) within five (5) years after the Effective Date, the Company enters into a term sheet to receive at least \$25,000,000 in equity or other form of investment or debt on terms satisfactory to the board of directors of the Company (the “Board”) including funding at closing on such terms of at least \$10 million; or (ii) within twelve (12) months after the Effective Date that the Company receives revenue of at least \$10 million. The Company has accrued \$52,500 of the deferred salary as of December 31, 2019, reflected in accrued expenses on the Balance Sheet. The Base Salary shall be subject to annual review and increase (but not decrease) by the Board during the Employment Term with minimum annual increases of 4% over the previous year’s Base Salary.

Mr. Dahl is entitled to a Revenue Bonus (as defined in the Agreement) equal to 2% of the Company’s revenue contribution in accordance with a formula as detailed in the Agreement. No Revenue Bonus is payable in any year where there is an Operating Net Loss (as defined in the Agreement). For the 2020 fiscal year (January 1, 2020 to December 31, 2020) (“Year One”), the Company shall pay Mr. Dahl a bonus equal to 50% of his Base Salary if the Company achieves revenues for Year One which are (w) at least \$500,000; and (x) greater than that for the 12-month period immediately preceding Year One. In addition, for 2021 fiscal year (January 1, 2021 through December 31, 2021) (“Year Two”), the Company shall pay Mr. Dahl a bonus equal to 50% of the Base Salary if the Company achieves revenues for Year Two which are (y) at least \$500,000; and (z) greater than that for Year One.

Mr. Dahl was awarded a non-qualified option to purchase 28 million shares of the Company’s common stock at a price equal to the greater of \$0.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan).

Mr. Dahl will be entitled to non-qualified performance-based options having an exercise price equal to the greater of \$.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan), upon the attainment of specified milestones as follows: (i) Non-qualified option to purchase 1,000,000 common shares upon identification of bioactive agents in the Company product and filing of a patent with respect thereto; (ii) Non-qualified option to purchase 1,500,000 common shares upon entering into a contract under which the Company receives at least \$500,000 in cash payments; (iii) Non-qualified option to purchase 1,500,000 common shares upon the Company entering into a co-development agreement with a research company to develop medicinal or pharmaceutical applications (where the partner provides at least \$2M in cash or in-kind outlays); (iv) Non-qualified option to purchase 1,500,000 common shares upon the Company entering into a co-development agreement for nutraceutical or dietary supplement applications (where the partner provides at least \$2M in cash or in-kind outlays); and (v) Non-qualified option to purchase 1,500,000 common shares upon the Registrant entering into a pharmaceutical development agreement.

As it relates to the Company’s wholly-owned subsidiary, Wellmetrix, LLC (“Wellmetrix”), if and when at least \$2 million in equity capital is raised from a third party and invested in Wellmetrix in an arms-length transaction, Mr. Dahl shall be granted a warrant to purchase an equity interest in Wellmetrix that is equal to the equity interest in Wellmetrix owned by the Company at the time of the first tranche of any such capital raise (the “Wellmetrix Warrant”). The Wellmetrix Warrant shall be fully vested as of the date it is granted and shall expire on the tenth (10th) anniversary of the grant date. Once granted, the Wellmetrix Warrant may be exercised from time to time in whole or in part, with Mr. Dahl retaining any unexercised portion. The exercise price for the Wellmetrix Warrant shall be equal to the fair market value of the interest in Wellmetrix implied by the pricing of the first tranche of any such capital raise.

Mr. Dahl’s Employment Agreement provides that if a Change of Control (as defined in the Agreement) occurs and Mr. Dahl is not offered substantially equivalent employment with the successor corporation or Mr. Dahl’s employment is terminated without Cause (as defined in the Agreement) during the three month period prior to the Change of Control or the 24-month period following the Change of Control, 100% of Mr. Dahl’s unvested options will be fully. Mr. Dahl’s Employment Agreement also provides for severance payments of, amongst other things, 300% of base salary and 2x the amount of the Revenue Bonus in such event.

NOTE 9- COMMITMENTS AND CONTINGENCIES (CONTINUED)

As of December 31, 2019, the milestone relating to the identification of bioactive agents in the Company product and the filing of a patent with respect thereto was met, thereby triggering the option to purchase 1,000,000 common shares. As per the Agreement, the Company issued a non-qualified option to purchase 1 million shares of the Company according to the 2019 Incentive Plan at an exercise price of \$.14 with a term of 10 years (these options were valued at \$138,806 using the Black Scholes pricing model relying on the following assumptions: volatility 164.37%; annual rate of dividends 0%; discount rate 1.84%).

The Company issued a non-qualified option to purchase 28 million shares of the Company according to the 2019 Incentive Plan at an exercise price of \$.10 with a term of 10 years (these options were valued at \$2,497,161 using the Black Scholes pricing model relying on the following assumptions: volatility 164.20%; annual rate of dividends 0%; discount rate 1.84%).

Investment Banking, M&A and Corporate Advisory Agreement

On February 21, 2018 the Company entered into a one-year agreement with an Investment Banking, Merger and Acquisition (M&A) and Corporate Advisory firm ("Firm"). Pursuant to the terms of the agreement, the Company issued a warrant to purchase 2,326,504 shares of common stock at an exercise price of \$.10 for a term of five years. The warrants were valued at \$245,040 using the Black Scholes pricing model relying on the following assumptions: volatility 177.09%; annual rate of dividends 0%; discount rate 2.69%. In addition to the contract fee, the Company could potentially be obligated to pay up to an 8% M&A transaction fee (as defined in the Agreement) plus a warrant to purchase shares of common stock equal to between 0.5% and 1.0%. As of December 31, 2018, the Company issued warrants to purchase 3,007,132 shares of common stock at an exercise price of \$.13 with a term of 5 years to an investment banker. The warrants were valued at \$374,511 using the Black Scholes pricing model relying on the following assumptions: volatility 180.13%; annual rate of dividends 0%; discount rate 2.65%. As a result of this issuance, any further potential obligation to pay a M&A transaction fee relating to warrants to purchase shares of common stock would be equal to 0.5% of the post financing fully shares outstanding at an exercise price equal to the valuation / share price of the financing (see Note 8 – Stockholders' Deficiency).

On September 30, 2019, effective July 9, 2019, the Company entered into an agreement with a Financial Advisor. The Financial Advisor has been engaged in an exclusive arrangement in connection with the proposed securities offering and sale of up to \$35 million of the Company's Common Stock. The Company has agreed to pay the Financial Advisor, upon the acceptance of a successful funding transaction, a fee of 1% of the aggregate value of the transaction and a warrant to purchase up to 6,000,000 shares of common stock at an exercise price of \$.10 for a term of five years. As of December 31, 2019, in connection with this agreement, no successful funding transactions have taken place and no warrants have been issued.

Supply Chain Consulting Agreement

On February 27, 2019, the Company entered into a Supply Chain Consulting Agreement with a consultant ("Consultant") (see Note 8 – Stockholders' Deficiency). In May 2019, the Company issued a supplemental warrant to purchase 5,000,000 shares of common stock at an exercise price of \$.08 for a term of five years to the Consultant. The warrants were valued at \$529,023 using the Black Scholes pricing model relying on the following assumptions: volatility 181.49%; annual rate of dividends 0%; discount rate 2.34%. In October 2019, 2,000,000 of those warrants were returned to the Company resulting in a reduction in the value of \$211,609. On September 14, 2019, the parties entered into a First Amendment to the Supply Chain Consulting Agreement ("Supply Consulting Agreement Amendment"). The Supply Consulting Agreement Amendment provides that the Consultant will identify and help negotiate the terms of potential joint ventures involving algae production development projects or related transactions or business combinations ("Development Project"). The Supply Consulting Agreement provides for exclusivity in Southeast Asia; Oceania; Indian subcontinent; and Africa; with regions in the Middle East by mutual agreement. The closing of a Development Project (as acceptable to the Company) is defined as the date that the Company is able, financially and otherwise, to proceed with engineering and construction of algae production facilities, processing or warehousing facilities and supply chain development, or related business combinations rendering an equivalent outcome (in the reasonable determination of the Company), for the production, processing, transport, compliance, marketing and resale of its proprietary algae biomass. Upon the closing of a Development Project, the Company will pay cash fees of \$300,000 to Consultant, pay an on-going monthly fee of \$50,000 for 24 months and issue to Consultant a cashless warrant with a five-year term to purchase nineteen million (19,000,000) shares of the Company's common stock at an exercise price of \$0.10 per share. As of December 31, 2019, the Development Project has not closed, and the warrants have not yet been issued. The Board of Directors has also authorized the Company to issue to Consultant a cashless warrant with a five-year term to purchase 1,000,000 shares of the Company's common stock at an exercise price of \$0.10 per share at its discretion. As of December 31, 2019, such warrant has not been issued.

NOTE 9- COMMITMENTS AND CONTINGENCIES (CONTINUED)

Legal Contingencies

We may become a party to litigation in the normal course of business. In the opinion of management, there are no legal matters involving us that would have a material adverse effect upon our financial condition, results of operation or cash flows.

NOTE 10 - RELATED PARTY TRANSACTIONS

Due to Related Party

See Note 5 Due to Related Party for disclosure of payable to related Party.

Loan Payable – Related Party

See Note 6 Loan Payable – Related Parties for disclosure of loans payable to related Parties

Executive Compensation

See Note 8 – Stockholders’ Deficit for disclosure of warrants to purchase 1,000,000 shares of common stock at an exercise price of \$.11 with a term of 5 years to the Executive Director of Asia Operations (a consultant). The Executive Director of Asia Operations is the spouse of the Chief Financial Officer. The Executive Director of Asia Operations is contracted on a month to month basis.

See Note 8 – Stockholder’ Deficiency for disclosure of compensation to the Chief Executive Officer and Chief Financial Officer.

Employment Agreement

See Note 9 – Commitments and Contingencies and Note 12 – Subsequent Event for disclosures of the Employment Agreements with the Chief Executive Officer and Chief Financial Officer.

NOTE 11 - INCOME TAXES

At December 31, 2018 the Company had available net-operating loss carry-forwards for Federal tax purposes of approximately \$76,746,000, which may be applied against future taxable income, if any, at various dates from 2019 through 2039. Certain significant changes in ownership of the Company may restrict the future utilization of these tax loss carry-forwards.

At December 31, 2019 the Company had a deferred tax asset of approximately \$20,721,000 representing the benefit of its net operating loss carry-forwards. The Company has not recognized the tax benefit because realization of the tax benefit is uncertain and thus a valuation allowance has been fully provided against the deferred tax asset. The difference between the Federal and State Statutory Rate of 27% and the Company’s effective tax rate of 0% is due to an increase in the valuation allowance of approximately \$3,788,000 in 2019.

NOTE 12 – SUBSEQUENT EVENTS

LOAN PAYABLE, RELATED PARTIES

As of March 26, 2020, the Company received proceeds of \$40,000 from Chris Maggiore and HEP Investments to be used as working capital.

CONVERTIBLE DEBT

Paulson Investment Company, LLC - Related Debt

On January 15, 2020, two New Lenders converted \$100,000 of the debt and \$36,225 of accrued interest into 1,362,246 shares of the Company’s common stock (at \$.10 per share) (see Note 7 - Convertible Debt).

NOTE 12 – SUBSEQUENT EVENTS (CONTINUED)

STOCKHOLDERS' DEFICIENCY and COMMITMENTS AND CONTINGENCIES

Stock Issuances

Through March 26, 2020, HEP Investments, a principal shareholder and related party, assigned warrants to purchase 4,100,000 shares of the Company's Common Stock to third party investors. The Company received proceeds of \$410,000 from the issuance of 4,100,000 shares of common stock from the exercise of those warrants.

Employment Agreement

On March 4, 2020, the Company entered into an employment letter with Philip Rice, Chief Financial Officer of the Company ("Agreement"). Under the terms of the Agreement, Mr. Rice will serve as Chief Financial Officer of the Company for one year, with successive automatic renewals for one year terms, unless either party terminates the Agreement on at least sixty days' notice prior to the expiration of the then current term of the Agreement. Mr. Rice will receive an annual base salary, commencing on January 1, 2020, of \$280,000 ("Base Salary"). The Base Salary shall increase to \$300,000, when the following event occurs: within one (1) year after the Effective Date, the Company enters into a term sheet and receives the related financing to receive at least \$15,000,000 in equity or other form of investment or debt ("Third Party Financing") on terms satisfactory to the board of directors of the Company (the "Board"). On the date the Agreement is executed, Mr. Rice shall receive a fully-vested nonqualified stock option to purchase 2,000,000 shares of the Company's common stock at a price equal to the greater of \$0.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan), 10 year term and a \$25,000 retention bonus.

Mr. Rice shall also receive a \$50,000 and a fully-vested nonqualified stock option to purchase 2,000,000 shares of the Company's common stock at a price equal to the greater of \$0.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan), 10 year term, upon the closing, prior to December 31, 2020, of Third Party Financing which raises at least \$15,000,000, as long as Mr. Rice was employed at the time of closing or was employed within one year prior to the closing.

If, upon the closing prior to December 31, 2021 of Third Party Financing which raises at least \$10,000,000 for the Company, Mr. Rice shall receive an additional bonus of \$50,000, as long as Mr. Rice was employed at the time of closing or if employed within one year prior to the closing.

Mr. Rice's Agreement provides that if a Change of Control (as defined in the Agreement) occurs and Mr. Rice is not offered substantially equivalent employment with the successor corporation or Mr. Rice's employment is terminated without Cause (as defined in the Agreement) during the three month period prior to the Change of Control or the 24-month period following the Change of Control, 100% of Mr. Rice's unvested options will be fully vested and the restrictions on his restricted shares will lapse. Mr. Rice's Agreement also provides for severance payments of, amongst other things, a lump sum payment of 300% of base salary and payment of 24 months of the base salary in such event.

Mr. Rice's will receive the following severance benefits following a termination (as defined) of employment: a continuation of his Base Salary for one (1) year and a fully-vested, nonqualified stock option to purchase 1,000,000 shares of the Company's common stock at a price equal to the greater of \$0.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan), 10 year term.

Employment Agreements

In 2020, the Company entered into Employment Letters ("Agreement") with two of its key employees. The Agreements provide, among other items, for immediate issuance of 6,500,000 options of the Company's common stock at an exercise price of at least the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan) on the date of the grant of a Share and shall have a term of five years. Based on certain performance milestones, the Agreements also provide for the issuance of an additional 10,000,000 options of the Company's common stock at an exercise price of at least the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan) on the date of the grant of a Share and shall have a term of five years. The agreements provide for a base salary and cash performance bonuses.

NOTE 12 – SUBSEQUENT EVENTS (CONTINUED)

COVID-19 STATEMENT

The Company is carefully monitoring the effects the COVID-19 global pandemic is having on its operations. Currently, the main potential effect is the uncertainty of the Company's ability to raising capital. Based on the nature of our operations, employees are able to work remotely with access to teleconferencing and video conferencing. The research partners utilized by the Company are currently providing services as requested, although some University researchers have limited availability as their campuses have closed down, with the expectation they will reopen sometime in April 2020. However, the Company cannot make any assurances the research partners will open as expected and perform at the levels as required until the COVID-19 situation is resolved. Other contract research organizations have remained open and accessible, although some resources have delayed response effectiveness.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEET

	September 30,	December 31,
	2020	2019
	(Unaudited)	
ASSETS		
CURRENT ASSETS:		
Cash	\$ 55,367	\$ 346,111
Prepaid Expenses	75,073	23,282
Total Current Assets	<u>130,440</u>	<u>369,393</u>
PROPERTY AND EQUIPMENT, NET	<u>-</u>	<u>-</u>
TOTAL ASSETS	<u>\$ 130,440</u>	<u>\$ 369,393</u>
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES:		
Accounts Payable	\$ 1,900,889	\$ 1,372,428
Loans Payable, Related Parties	109,000	-
Convertible Debentures Payable	5,180,342	5,280,342
Deferred Revenue - Participation Agreements	1,384,907	-
Accrued Interest	2,328,287	1,952,606
Accrued Liabilities – Other	196,163	102,500
Total Current Liabilities	<u>11,099,588</u>	<u>8,707,876</u>
LONG-TERM LIABILITIES:		
Loans Payable, Others	121,700	-
Total Long-Term Liabilities	<u>121,700</u>	<u>-</u>
TOTAL LIABILITIES	<u>11,221,288</u>	<u>8,707,876</u>
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' DEFICIT:		
Common stock, \$.001 par value, 1,200,000,000 shares authorized; 406,924,005 and 396,736,506 issued and outstanding at September 30, 2020 and December 31, 2019	406,924	396,737
Additional Paid-In Capital	85,672,742	81,222,726
Accumulated deficit	(97,170,514)	(89,957,946)
Total Stockholders' Deficit	<u>(11,090,848)</u>	<u>(8,338,483)</u>
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	<u>\$ 130,440</u>	<u>\$ 369,393</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Three Months ended September 30, 2020	For the Three Months ended September 30, 2019	For the Nine Months ended September 30, 2020	For the Nine Months ended September 30, 2019
REVENUES:				
Service Revenue	\$ -	\$ -	\$ 20,000	\$ -
Total Revenues	<u>-</u>	<u>-</u>	<u>20,000</u>	<u>-</u>
COSTS AND EXPENSES:				
General and Administrative	458,755	339,842	1,526,530	1,062,423
Professional fees and Consulting expense	1,610,931	708,578	1,986,417	1,677,128
Research and Development	<u>1,294,921</u>	<u>525,581</u>	<u>3,307,716</u>	<u>1,839,547</u>
Total Costs and Expenses	<u>3,364,607</u>	<u>1,574,001</u>	<u>6,820,663</u>	<u>4,579,098</u>
LOSS FROM OPERATIONS	(3,364,607)	(1,574,001)	(6,800,663)	(4,579,098)
OTHER EXPENSE:				
Amortization of Debt Discount	-	-	-	(374,608)
Financing Costs	-	-	-	(581)
Interest expense	(24,281)	(26,725)	(72,890)	(80,175)
Interest expense – related parties	<u>(113,867)</u>	<u>(180,402)</u>	<u>(339,015)</u>	<u>(2,343,808)</u>
Total Other Expense	<u>(138,148)</u>	<u>(207,127)</u>	<u>(411,906)</u>	<u>(2,799,172)</u>
NET LOSS	<u>\$ (3,502,755)</u>	<u>\$ (1,781,128)</u>	<u>\$ (7,212,568)</u>	<u>\$ (7,378,270)</u>
BASIC AND DILUTED LOSS PER SHARE	<u>\$ (0.01)</u>	<u>\$ (0.01)</u>	<u>\$ (0.02)</u>	<u>\$ (0.03)</u>
WEIGHTED AVERAGE BASIC AND DILUTED SHARES OUTSTANDING	<u>406,724,979</u>	<u>347,770,054</u>	<u>404,796,634</u>	<u>247,783,445</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' DEFICIENCY
FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2019 AND SEPTEMBER 30, 2020

	Common Stock		Additional Paid in Capital	Accumulated Deficit	Total
	Shares	Amount			
Balance, December 31, 2018	180,036,435	\$ 180,037	\$ 55,985,626	\$ (78,447,780)	\$ (22,282,117)
Issuance of warrants for services	-	-	19,745	-	19,745
Issuance of warrants for services – related party	-	-	4,767	-	4,767
Issuance of common stock for cash	1,500,000	1,500	148,500	-	150,000
Common stock issued on conversion of 11% Convertible Debt and accrued interest	4,649,291	4,649	460,280	-	464,929
Net loss for the three months ended March 31, 2019	-	-	-	(3,056,996)	(3,056,996)
Balance, March 31, 2019	<u>186,185,726</u>	<u>186,186</u>	<u>56,618,918</u>	<u>(81,504,776)</u>	<u>(24,699,672)</u>
Issuance of warrants for services	-	-	529,023	-	529,023
Issuance of warrants for services – related party	-	-	4,800	-	4,800
Issuance of common stock for cash	12,020,000	12,020	1,189,980	-	1,202,000
Common stock issued on conversion of 11% Convertible Debt and accrued interest	143,447,677	143,448	14,201,320	-	14,344,768
Net loss for the three months ended June 30, 2019	-	-	-	(2,540,146)	(2,540,146)
Balance, June 30, 2019	<u>341,653,403</u>	<u>\$ 341,654</u>	<u>\$ 72,544,041</u>	<u>\$ (84,044,922)</u>	<u>\$ (11,159,227)</u>
Issuance of warrants for services	-	-	231,032	-	231,032
Issuance of warrants for services – related party	-	-	3,850	-	3,850
Issuance of warrants for services – directors fees	-	-	192,614	-	192,614
Issuance of common stock for cash	12,980,000	12,980	1,285,020	-	1,298,000
Common stock issued on conversion of Loan Payable	3,118,359	3,118	308,718	-	311,836
Net loss for the three months ended September 30, 2019	-	-	-	(1,781,128)	(1,781,128)
Balance, September 30, 2019	<u>357,751,762</u>	<u>\$ 357,752</u>	<u>\$ 74,565,275</u>	<u>\$ (85,826,050)</u>	<u>\$ (10,903,023)</u>

	Common Stock		Additional Paid in Capital	Accumulated Deficit	Total
	Shares	Amount			
Balance, December 31, 2019	396,736,506	\$ 396,737	\$ 81,222,726	\$ (89,957,946)	\$ (8,338,483)
Issuance of warrants for services	-	-	898,975	-	898,975
Issuance of warrants for services – related party	-	-	297,248	-	297,248
Issuance of common stock for cash	156,252	156	24,844	-	25,000
Common stock issued on conversion of 11% Convertible Debt and accrued interest	1,362,247	1,362	134,863	-	136,225
Common stock issued on warrant exercise	5,636,690	5,637	370,363	-	376,000
Net loss for the three months ended March 31, 2020	-	-	-	(2,542,978)	(2,542,978)
Balance, March 31, 2020	<u>403,891,695</u>	<u>403,892</u>	<u>82,949,019</u>	<u>(92,500,924)</u>	<u>(9,148,013)</u>
Issuance of warrants for participation agreements	-	-	117,474	-	117,474
Common stock issued on warrant exercise	2,758,637	2,759	201,641	-	204,400
Net loss for the three months ended June 30, 2020	-	-	-	(1,166,835)	(1,166,835)
Balance, June 30, 2020	<u>406,650,332</u>	<u>\$ 406,651</u>	<u>\$ 83,268,134</u>	<u>\$ (93,667,759)</u>	<u>\$ (9,992,974)</u>
Issuance of warrants for services	-	-	713,647	-	713,647
Issuance of warrants for services – directors fees	-	-	1,248,616	-	1,248,616
Issuance of warrants for participation agreements	-	-	422,618	-	422,618
Common stock issued on warrant exercise	273,673	273	19,727	-	20,000
Net loss for the three months ended September 30, 2020	-	-	-	(3,502,755)	(3,502,755)
Balance, September 30, 2020	<u>406,924,005</u>	<u>\$ 406,924</u>	<u>\$ 85,672,742</u>	<u>\$ (97,170,514)</u>	<u>\$ (11,090,848)</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

	For the Nine Months Ended September 30, 2020	For the Nine Months Ended September 30, 2019
Cash Flows for Operating Activities:		
Net Loss	\$ (7,212,569)	\$ (7,378,270)
Adjustments to reconcile net loss to net cash used by operating activities:		
Stock and warrants issued for services rendered – related party	297,248	13,417
Stock and warrants issued for services rendered	1,612,623	779,801
Warrants issued for Directors’ Fees	1,248,616	192,614
Amortization of debt issuance costs (interest expense – related parties)	-	1,187,817
Amortization of bond discount	-	374,608
Changes in assets and liabilities:		
(Increase) in prepaid expenses	(51,791)	(31,858)
Increase in accounts payable	528,462	539,743
Increase in deferred revenue – participation agreements	1,384,907	-
Increase in accrued liabilities and interest	505,568	1,266,165
Net Cash (Used) by Operating Activities	<u>(1,686,936)</u>	<u>(3,055,963)</u>
Cash Flows from Investing Activities:		
	-	-
	-	-
Cash Flow from Financing Activities:		
Proceeds from Loan Payable, related party – net of repayments	129,000	32,500
Proceeds of Loan Payable, other	121,700	-
Proceeds from sale of common stock warrants – participation agreements	540,093	-
Proceeds from exercise of common stock warrants	580,400	-
Proceeds from sales of common stock	25,000	2,650,000
Net Cash Provided by Financing Activities	<u>1,396,193</u>	<u>2,682,500</u>
(Decrease) in Cash	(290,743)	(373,463)
Cash at Beginning of Period	346,111	388,890
Cash at End of Period	<u>\$ 55,368</u>	<u>\$ 15,427</u>
Supplemental Disclosures of Cash Flow Information:		
Cash paid during the period for:		
Interest	\$ -	\$ 581
Income Taxes	\$ -	\$ -

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS (Continued)

Supplemental Disclosure of Non-Cash Investing and Financing Activities:

Nine Months Ended September 30, 2020:

During the quarter ended March 31, 2020, \$100,000 of 11% Convertible Notes, as well as \$36,225 in related accrued interest were converted at \$.10 per share into 1,362,247 shares of the Company's common stock.

During the quarter ended March 31, 2020, a principal shareholder and related party assigned warrants to purchase 3,750,000 shares of the Company's Common Stock to third party investors and such warrants were exercised in the first quarter of 2020 at \$.10 per share resulting in the issuance of 3,750,000 shares of common stock for gross proceeds of \$375,000. The Company considered the warrants to be contributed capital from a majority shareholder and recorded equity related finance charges. The warrants were valued at \$453,441 using the Black Scholes pricing model relying on the following assumptions: volatilities ranging from 128.20% to 142.46%; annual rate of dividends 0%; discount rates ranging from 0.66% to 1.65%.

During the quarter ended March 31, 2020, warrants to purchase 3,880,000 shares of the Company's Common Stock were exercised on a "cashless" basis resulting in the issuance of 1,876,691 shares of common stock.

During the quarter ended June 30, 2020, a principal shareholder and related party assigned a warrant to purchase 500,000 shares of the Company's Common Stock to a third party investor and such warrant was exercised in the second quarter of 2020 at \$.10 per share resulting in the issuance of 500,000 shares of common stock for gross proceeds of \$50,000. The Company considered the warrant to be contributed capital from a majority shareholder and recorded equity related finance charges. The warrants were valued at \$42,090 using the Black Scholes pricing model relying on the following assumptions: volatility of 133.44%; annual rate of dividends 0%; discount rate of 0.41%.

During the quarter ended June 30, 2020, warrants to purchase 920,000 shares of the Company's Common Stock were exercised on a "cashless" basis resulting in the issuance of 333,637 shares of common stock.

During the quarter ended September 30, 2020, \$20,000 of Loan Payable, Related Parties were converted at \$.10 per share into 200,000 shares of the Company's common stock.

During the quarter ended September 30, 2020, warrants to purchase 800,000 shares of the Company's Common Stock were exercised on a "cashless" basis resulting in the issuance of 73,673 shares of common stock.

Nine Months Ended September 30, 2019:

During the quarter ended March 31, 2019, \$464,929 of Due to Related Party and Loans Payable – Related Party were converted at \$.10 per share into 4,649,291 shares of the Company's common stock.

During the quarter ended June 30, 2019, \$12,080,298 of 11% Convertible Notes – Related Party, as well as \$2,264,470 in related accrued interest were converted at \$.10 per share into 143,447,677 shares of the Company's common stock.

During the quarter ended September 30, 2019, \$176,405 of Loan Payable, Related Parties and related accrued interest of \$135,431 were converted at \$.10 per share into 3,118,359 shares of the Company's common stock.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 – BASIS OF PRESENTATION

The accompanying unaudited condensed consolidated financial statements include the accounts of ZIVO Bioscience, Inc. and its wholly-owned subsidiaries (collectively, the “Company”). All significant intercompany accounts and transactions have been eliminated in consolidation. In the opinion of the Company’s management, the financial statements contain all adjustments (consisting of only normal recurring adjustments) necessary to present fairly the information set forth therein. These consolidated financial statements are condensed, and therefore do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. These unaudited condensed consolidated financial statements should be read in conjunction with the Company’s December 31, 2019 consolidated audited financial statements and Notes thereto included in the Annual Report on Form 10-K filed with the SEC on March 26, 2020.

The results of operations for the nine months ended September 30, 2020 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2020, or any other period.

The Company incurred a net loss of \$7,212,569 for the nine months ended September 30, 2020. In addition, the Company had a working capital deficiency of \$10,969,148 and a stockholders’ deficit of \$11,090,848 at September 30, 2020. These factors continue to raise substantial doubt about the Company’s ability to continue as a going concern. During the nine months ended September 30, 2020, the Company raised \$625,400 from the issuance of common stock and exercise of common stock warrants; \$1,925,000 from the proceeds from the sale of Participation Agreements and related warrants; \$121,700 in Loans Payable, Other and \$129,000 in loans from related parties. There can be no assurance that the Company will be able to raise additional capital.

The accompanying unaudited condensed consolidated financial statements do not include any adjustments related to the recoverability or classification of asset-carrying amounts or the amounts and classifications of liabilities that may result should the Company be unable to continue as a going concern.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The unaudited condensed consolidated financial statements include the accounts of ZIVO Bioscience, Inc. and its wholly-owned subsidiaries, Health Enhancement Corporation, HEPI Pharmaceuticals, Inc., Wellmetrix, LLC (formerly known as WellMetris, LLC), Zivo Bioscience, LLC and Zivo Biologic, Inc. All significant intercompany transactions and accounts have been eliminated in consolidation.

Accounting Estimates

The Company’s condensed consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America, which require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities, at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Management uses its best judgment in valuing these estimates and may, as warranted, solicit external professional advice and other assumptions believed to be reasonable.

Cash and Cash Equivalents

For the purpose of the statements of cash flows, cash equivalents include time deposits, certificates of deposit and all highly liquid debt instruments with original maturities of three months or less. Cash equivalents consist of highly liquid investments with an original maturity of three months or less when purchased. At September 30, 2020, the Company did not have any cash equivalents.

Property and Equipment

Property and equipment consist of furniture and office equipment and are carried at cost less allowances for depreciation and amortization. Depreciation and amortization is determined by using the straight-line method over the estimated useful lives of the related assets. Repair and maintenance costs that do not improve service potential or extend the economic life of an existing fixed asset are expensed as incurred.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Debt Issuance Costs

The Company follows authoritative guidance for accounting for financing costs (as amended) as it relates to convertible debt issuance costs. These costs are deferred and amortized over the term of the debt period or until redemption of the convertible debentures. Debt Issuance Costs are reported on the balance sheet as a direct deduction from the face amount of the related notes. Amortization of debt issuance costs amounted to \$-0- and \$1,187,817 and are included in Interest Expense – Related Parties on the condensed consolidated Statements of Operations for the nine months ended September 30, 2020 and 2019, respectively. As of September 30, 2020, and December 31, 2019 there were no unamortized Debt Issuance costs included in the condensed consolidated Balance Sheets as presented in these financial statements.

Revenue Recognition

Revenue is recognized in accordance with revenue recognition accounting guidance, which utilizes five steps to determine whether revenue can be recognized and to what extent: (i) identify the contract with a customer; (ii) identify the performance obligation(s); (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) determine the recognition period. The Company only applies the five-step model to contracts when it is probable that the Company will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, Revenue from Contracts with Customers, the Company assesses the goods or services promised within each contract and determines those that are performance obligations and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Significant judgments exercised by management include the identification of performance obligations, and whether such promised goods or services are considered distinct. The Company evaluates promised goods or services on a contract by contract basis to determine whether each promise represents a good or service that is distinct or has the same pattern of transfer as other promises. A promised good or service is considered distinct if the customer can benefit from the good or service independently of other goods/services either in the contract or that can be obtained elsewhere, without regard to contract exclusivity, and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract. If the good or service is not considered distinct, the Company combines such promises and accounts for them as a single combined performance obligation.

For nine months ended September 30, 2020 and 2019, the Company had \$20,000 and \$-0- of service revenue, respectively.

Shipping and Handling Costs

Shipping and handling costs are expensed as incurred. For the nine months ended September 30, 2020 and 2019, no shipping and handling costs were incurred.

Research and Development

Research and development costs are expensed as incurred. The Company's research and development costs, including internal expenses, consist of clinical study expenses as it relates to the BioTech business and the development and growing of algae as it relates to the AgTech business. These consist of fees, charges, and related expenses incurred in the conduct of business with Company development by independent outside contractors. External clinical studies study expenses were approximately \$1,431,000 and \$1,650,000 for the nine months ended September 30, 2020 and 2019, respectively. Internal expenses, composed of staff salaries compose approximately \$1,877,000 and \$190,000 for the nine months ended September 30, 2020 and 2019, respectively.

Stock Based Compensation

We account for stock-based compensation in accordance with FASB ASC 718, *Compensation – Stock Compensation*, as amended by (ASU) No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting*. Under the provisions of FASB ASC 718, stock-based compensation cost is estimated at the grant date based on the award's fair value and is recognized as expense over the requisite service period. The Company generally issues grants to its employees, consultants and board members. At the date of grant, the Company determines the fair value of the stock option or warrant award and recognizes compensation expense over the requisite service period. The fair value of the stock option or warrant award is calculated using the Black Scholes option pricing model.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

During the nine months ended September 30, 2020 and 2019, stock options and warrants were granted to employees, the Board of Directors and consultants of the Company. As a result of these grants, the Company recorded compensation expense of \$3,158,487 and \$985,832 for these periods, respectively.

The fair value of stock options and warrants was estimated on the date of grant using the Black-Scholes option-pricing model based on the following weighted average assumptions:

	Nine Months Ended September 30,	
	2020	2019
Expected volatility	144.39% to 184.19%	176.10% to 185.11%
Expected dividends	0%	0%
Expected term	5-10 years	5 years
Risk free rate	0.28% to 2.31%	1.58% to 2.77%

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company's employee warrants have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion the existing models may not necessarily provide a reliable single measure of the fair value of the warrants.

Loss Per Share

Basic loss per share is computed by dividing the Company's net loss by the weighted average number of common shares outstanding during the period presented. Diluted loss per share is based on the treasury stock method and includes the effect from potential issuance of common stock such as shares issuable pursuant to the exercise of options, warrants and conversions of debentures. Potentially dilutive securities as of September 30, 2020, consisted of 76,578,752 common shares issuable upon the conversion of convertible debentures and related accrued interest and 237,547,006 common shares issuable upon the exercise of outstanding stock options and warrants. Potentially dilutive securities as of September 30, 2019, consisted of 101,203,285 common shares issuable upon the conversion of convertible debentures and related accrued interest and 203,130,756 common shares issuable upon the exercise of outstanding warrants. For the nine months ended September 30, 2020 and 2019 diluted and basic weighted average shares are the same, as potentially dilutive shares are anti-dilutive.

Advertising

Advertising costs are charged to operations when incurred. There were no advertising costs for the nine months ended September 30, 2020 and 2019.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents. The Company, from time to time, maintains cash balances at financial institutions which exceed the current Federal Deposit Insurance Corporation ("FDIC") limit of \$250,000.

Reclassifications

Certain items in these consolidated financial statements have been reclassified to conform to the current period presentation.

Recently Enacted Accounting Standards

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-09 (ASU 2014-09), "Revenue from Contracts with Customers." ASU 2014-09 superseded the revenue recognition requirements in "Revenue Recognition (Topic 605)," and requires entities to recognize revenue when it transfers promised goods or services to customers in an amount that reflect the consideration to which the entity expects to be entitled to in exchange for those goods or services. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. Early adoption is not permitted. Historically the Company has had insignificant revenues.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

In February 2016, the FASB issued ASU No. 2016-02, "Leases," to require lessees to recognize all leases, with limited exceptions, on the balance sheet, while recognition on the statement of operations will remain similar to current lease accounting. The ASU also eliminates real estate-specific provisions and modifies certain aspects of lessor accounting. Subsequently, the FASB issued ASU No. 2018-10, "Codification Improvements to Topic 842", ASU No. 2018-11, "Targeted Improvements," and ASU No. 2018-20, "Narrow-Scope Improvements for Lessors," to clarify and amend the guidance in ASU No. 2016-02. ASU No. 2016-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period.

The Company has adopted each of the ASUs. Prior comparative periods were not required to be restated and the ASUs have not had an impact on the Company's consolidated financial statements.

NOTE 3 - PROPERTY AND EQUIPMENT

Property and equipment at September 30, 2020 and December 31, 2019 consisted of the following:

	September 30, 2020	December 31, 2019
	(Unaudited)	
Furniture and fixtures	\$ 20,000	\$ 20,000
Equipment	80,000	80,000
	100,000	100,000
Less accumulated depreciation and amortization	(100,000)	(100,000)
	\$ -	\$ -

There were no depreciation and amortization expenses for the nine months ended September 30, 2020 and 2019 respectively.

NOTE 4 – DUE TO RELATED PARTY

The Company pays HEP Investments, LLC, a related party, a 5.4% cash finance fee for monies invested in the Company in the form of convertible debt (see Note 6). During the quarter ended March 31, 2019, the balance of \$432,429 was converted at \$.10 per share into 4,324,291 shares of the Company's common stock. As of September 30, 2020, and December 31, 2019, there were no outstanding balances due to related parties related to the Company's convertible debt.

NOTE 5 – LOAN PAYABLE, RELATED PARTIES

Christopher Maggiore

During the nine months ended September 30, 2020, Mr. Christopher Maggiore, a director and a significant shareholder of the Company, advanced \$20,000 to the Company. On September 15, 2020, he applied \$20,000 of the loan balance to fund the purchase of 200,000 shares of a warrant for 250,000 shares of common stock at an exercise price of \$.10 per share. The remaining 50,000 warrants were cashlessly exercised into 3,704 shares. The Company has agreed to pay interest of 11% per annum on these loans and as of September 30, 2020 owes accrued interest of \$542.

During the nine months ended September 30, 2020 and September 30, 2019, the Company recorded interest expense on loans payable to Mr. Maggiore of \$1,254 and \$24,061, respectively.

HEP Investments, LLC

During the nine months ended September 30, 2020, HEP Investments, LLC advanced the Company \$139,000, of which \$30,000 has been repaid during this period. As of September 30, 2020, HEP Investments, LLC is owed \$109,000.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 6 – CONVERTIBLE DEBT

HEP Investments, LLC – Related Party

On December 2, 2011, the Company and HEP Investments, LLC, a Michigan limited liability company (the “Lender”), entered into the following documents, effective as of December 1, 2011, as amended through May 16, 2018: (i) a Loan Agreement under which the Lender has agreed to advance up to \$20,000,000 to the Company, subject to certain conditions, (ii) an 11% Convertible Secured Promissory Note in the principal amount of \$20,000,000 (“Note”) (of which a total of \$18,470,640 has been funded, with a total of \$14,380,298 converted into 143,702,981 shares of common stock, leaving a balance advanced of \$4,090,342 as of September 30, 2020), (iii) a Security Agreement, under which the Company granted the Lender a security interest in all of its assets, (iv) issue the Lender warrants to purchase 1,666,667 shares of common stock at an exercise price of \$.12 per share (including a cashless exercise provision) which expired September 30, 2016 (from the original December 1, 2011 agreement), (v) enter into a Registration Rights Agreement with respect to all the shares of common stock issuable to the Lender in connection with the Loan transaction, in each case subject to completion of funding of the full \$20,000,000 called for by the Loan Agreement, and (vi) an Intellectual Property security agreement under which the Company and its subsidiaries granted the Lender a security interest in all their respective intellectual properties, including patents, in order to secure their respective obligations to the Lender under the Note and related documents. The Lenders Notes are convertible into the Company’s restricted common stock at \$.10 per share and bear interest at the rate of 11% per annum. In addition, the Company’s subsidiaries have guaranteed the Company’s obligations under the Note. The Company has also made certain agreements with the Lender which shall remain in effect as long as any amount is outstanding under the Loan. These agreements include an agreement not to make any change in the Company’s senior management, without the prior written consent of the Lender. Two representatives of the Lender will have the right to attend Board of Director meetings as non-voting observers.

On March 29, 2019, the Company and the Lender entered into a “Debt Extension Agreement” whereby the Lender extended the maturity date of the Note to June 30, 2019. The Lender received no additional consideration related to this debt extension. The Company determined that the modification of these Notes was not a substantial modification in accordance with ASC 470-50, “Modifications and Extinguishments.”

As of September 30, 2020, the Company has not made the required annual interest payments and principal payments to the Lender. As the Company has not received a notice of default, pursuant to the terms of the Notes, the Company does not currently consider itself in default. Were the Company to be in default, additional interest would accrue at a rate of 16% per annum.

Based on the above, as of September 30, 2020, the total shares of common stock, if the Lender converted the complete \$4,090,342 convertible debt, including related accrued interest of \$1,859,832, would be 59,501,746 shares, not including any future interest charges which may be converted into common stock.

Paulson Investment Company, LLC - Related Debt

On August 24, 2016, the Company entered into a Placement Agent Agreement with Paulson Investment Company, LLC (Paulson). The agreement provided that Paulson could provide up to \$2 million in financings through “accredited investors” (as defined by Regulation D of the Securities Act of 1933, as amended). As of December 31, 2016, the Company received funding of \$1,250,000 through seven (7) individual loans (the “New Lenders”). Each loan included a (i) a Loan Agreement of the individual loan, (ii) a Convertible Secured Promissory Note (“New Lenders Notes”) in the principal amount of the loan, (iii) a Security Agreement under which the Company granted the Lender a security interest in all of its assets and (iv) an Intercreditor Agreement with HEP Investments, LLC (HEP) whereby HEP and the New Lenders agree to participate in all collateral on a pari passu basis. The loans have a two-year term and mature in September 2018 (\$600,000) and October 2018 (\$650,000). Paulson received a 10% cash finance fee for monies invested in the Company in the form of convertible debt, along with 5 year, \$.10 warrants equal to 15% of the number of common shares for which the debt is convertible into at \$.10 per share. The New Lenders Notes are convertible into the Company’s restricted common stock at \$.10 per share and bear interest at the rate of 11% per annum.

On September 24, 2018, one New Lender converted \$300,000 of the debt and \$64,280 of accrued interest into 3,642,800 shares of the Company’s common stock (at \$.10 per share). On May 8, 2019, one of the New Lenders bought the note of another New Lender.

On January 15, 2020, two New Lenders converted \$100,000 of the debt and \$36,225 of accrued interest into 1,362,246 shares of the Company’s common stock (at \$.10 per share).

The New Lenders Notes state that they will be repaid as follows: accrued interest must be paid on the first and second anniversary of the Note and unpaid principal not previously converted into common stock must be repaid on the second anniversary of the Note.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 6 – CONVERTIBLE DEBT (continued)

As of September 30, 2020, the Company has not made the required annual interest payments to the three (3) remaining New Lenders. As the Company has not received notices of default, pursuant to the terms of the Notes, we do not currently consider ourselves in default to the three (3) remaining investors. Were the Company to be considered in default, additional interest would accrue at a rate of 16% per annum.

Other Debt

In September 2014, the Lender of the 1% convertible debentures agreed to rolling 30-day extensions until notice is given to the Company to the contrary. As of September 30, 2020, that agreement is still in place. The Company determined that the modification of these Notes is not a substantial modification in accordance with ASC 470-50, “Modifications and Extinguishments.”

Convertible debt consists of the following:

	September 30, 2020 (Unaudited)	December 31, 2019
1% Convertible notes payable, due November 30, 2020 (at September 30, 2020)	\$ 240,000	\$ 240,000
11% Convertible note payable – HEP Investments LLC, a related party, past due September 30, 2019 (as of September 30, 2020 no notice of default has been received)	4,090,342	4,090,342
11% Convertible note payable – New Lenders; placed by Paulson, past due at various dates ranging from September 2018 to October 2019 (as of September 30, 2020 no notice of default has been received)	850,000	950,000
	5,180,342	5,280,342
Less: Current portion	5,180,342	5,280,342
Long term portion	\$ -	\$ -

Amortization of debt discounts was \$0- and \$374,608 for the nine months ended September 30, 2020 and 2019, respectively.

NOTE 7 – LOANS PAYABLE - OTHERS

Paycheck Protection Program Loan

On May 7, 2020, The Company received \$121,700 in loan funding from the Paycheck Protection Program (the "PPP") established pursuant to the recently enacted Coronavirus Aid, Relief, and Economic Security Act of 2020 (the "CARES Act") and administered by the U.S. Small Business Administration ("SBA"). The unsecured loan (the "PPP Loan") is evidenced by a promissory note of the Company, dated April 29, 2020 (the "Note") in the principal amount of \$121,700 with Comerica Bank (the "Bank"), the lender.

Under the terms of the Note and the PPP Loan, interest accrues on the outstanding principal at the rate of 1.0% per annum. The term of the Note is two years, though it may be payable sooner in connection with an event of default under the Note. To the extent the loan amount is not forgiven under the PPP, the Company will be obligated to make equal monthly payments of principal and interest beginning on the date that is seven months from the date of the Note, until the maturity date. The Note may be prepaid in part or in full, at any time, without penalty.

The CARES Act and the PPP provide a mechanism for forgiveness of up to the full amount borrowed. Under the PPP, the Company may apply for forgiveness for all or a part of the PPP Loan. The amount of loan proceeds eligible for forgiveness, as amended, is based on a formula that takes into account a number of factors, including: (i) the amount of loan proceeds that are used by the Company during the covered period after the loan origination date for certain specified purposes including payroll costs, interest on certain mortgage obligations, rent payments on certain leases, and certain qualified utility payments, provided that at least 75% of the loan amount is used for eligible payroll costs; (ii) the Company maintaining or rehiring employees, and maintaining salaries at certain levels; and (iii) other factors established by the SBA. Subject to the other requirements and limitations on loan forgiveness, only that portion of the loan proceeds spent on payroll and other eligible costs during the covered period will qualify for forgiveness. Although the Company currently intends to use the entire amount of the PPP Loan for qualifying expenses, no assurance is provided that the Company will obtain forgiveness of the PPP Loan in whole or in part.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 7 – LOANS PAYABLE – OTHERS (continued)

The Note contains customary events of default as follows. The Company:

- Fails to make a scheduled payment;
- Fails to do anything required by the Note and other Loan Documents;
- Defaults on any other loan with Lender;
- Is not eligible to receive a loan under the PPP when the Loan is made;
- Does not disclose, or anyone acting on their behalf does not disclose, any material fact to Lender or SBA;
- Makes, or anyone acting on their behalf makes, a materially false or misleading representation to Lender or SBA;
- Defaults on any loan or agreement with another creditor, if Lender believes the default may materially affect the Company's ability to pay the Note;
- Fails to pay any taxes when due;
- Becomes the subject of a proceeding under any bankruptcy or insolvency law;
- Has a receiver or liquidator appointed for any part of its business or property;
- Makes an assignment for the benefit of creditors;
- Has any adverse change in financial condition or business operation that Lender believes may materially affect the Company's ability to pay the Note, provided that this provision shall not apply to adverse changes or conditions resulting from the Covid-19 pandemic and the circumstances giving rise to the CARES Act;
- Reorganizes, merges, consolidates, or otherwise changes ownership or business structure, (2) makes any distribution of the Company's assets that would adversely affect its financial condition, or (3) transfers (including by pledge) or disposes of any assets except in the ordinary course of business, in each case without Lender's prior written consent; or
- Becomes the subject of a civil or criminal action that Lender believes may materially affect the Company's ability to pay the Note.

Upon the occurrence of an event of default, the Lender has customary remedies and may, among other things, require immediate payment of all amounts owed under the Note, collect all amounts owing from the Company, and file suit and obtain judgment against the Company.

NOTE 8 - DEFERRED REVENUE - PARTICIPATION AGREEMENTS

During the quarter ended September 30, 2020, the Company entered into twelve (12) License Co-Development Participation Agreements ("Agreements") totaling \$1,925,000 with third parties ("Participants"). The Agreements provide for payments by the Company to the Participants of an aggregate of 28.875% of fees generated by the Company from licensing or selling bioactive ingredients or molecules (including its TLR4 Inhibitor molecule) derived from the Company's algae cultures and actually received from any licensee of the Company (the "Revenue Share"). The Agreements also call for the issuance of warrants to purchase an aggregate of 5,325,000 shares of common stock with a term of five years and at exercise prices of either \$.11 or \$.12 per share (See the Table below).

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 8 - DEFERRED REVENUE - PARTICIPATION AGREEMENTS (Continued)

According to the terms of the Agreements, and pursuant to ASC 470-10-25 “Debt – Sales of Future Revenues” the Company has bifurcated the proceeds of \$1,925,000 as follows: 1) the 5,325,000 warrants sold were attributed a value of \$540,093 based on the Black Scholes pricing model using the following assumptions: volatilities ranging from 145.13% to 154.38%; annual rate of dividends 0%; discount rates ranging from 0.29% to 0.44%, and recorded as Additional Paid In Capital; 2) the remaining \$1,384,907 was recorded as Deferred Revenue – Participation Agreements. Since the Company believes there is a rebuttable presumption pursuant to ASC 470-10-25.2, the Deferred Revenue – Participation Agreements will be amortized into income, using an estimate to be determined by Management, if and when the Company derives income from the license or sale of bioactive ingredients or molecules (including its TLR4 Inhibitor molecule) derived from the Company’s algae cultures.

Agreements #1 through #4 allow the Company the option (“Option”) to buy back the right, title and interest in the Revenue Share for an amount equal to the amount funded plus a forty percent (40%) premium. The Company may exercise its Option by delivering written notice to the Participant of its intent to exercise the Option, along with repayment terms of the amount funded, which may be paid, in the Company’s sole discretion, in one lump sum or in four (4) equal quarterly payments.

Agreements #5 through #12 allow the Company the Option to buy back the right, title and interest in the Revenue Share for an amount equal to the amount funded plus a forty percent (40%) premium, if the Option is exercised in less than 18 months, or a fifty percent (50%) premium, if the Option is exercised after 18 months. Pursuant to the terms of Agreements #5 through #12, the Company may not exercise its Option until it has paid the Participant a revenue share equal to a minimum of thirty percent (30%) of the amount initially funded. Once this minimum threshold is met, the Company may exercise its Option by delivering written notice to the Participant of its intent to exercise the Option, along with repayment terms of the amount funded, which may be paid, in the Company’s sole discretion, in one lump sum or in four (4) equal quarterly payments. If the Company does not make such quarterly payments timely for any quarter, then the Company shall pay the prorated Revenue Share amount, retroactive on the entire remaining balance owed, that would have been earned during such quarter until the default payments are made and the payment schedule is no longer in default.

Agreement #	Date of Funding	Amount Funded	Warrants	Term	Exercise Price	Revenue Share	Minimum Payment Threshold	Buy-back Premium % pre-18 mos.	Buy-back Premium % post 18 mos.
1	April 13, 2020	\$ 100,000	300,000	5 Years	\$ 0.12	1.500%	-	40%	40%
2	April 13, 2020	150,000	450,000	5 Years	0.12	2.250%	-	40%	40%
3	April 13, 2020	150,000	450,000	5 Years	0.12	2.250%	-	40%	40%
4	May 7, 2020	250,000	750,000	5 Years	0.12	3.750%	-	40%	40%
5	June 1, 2020	275,000	825,000	5 Years	0.11	4.125%	\$ 82,500	40%	50%
6	June 3, 2020	225,000	675,000	5 Years	0.11	3.375%	67,500	40%	50%
7	July 8, 2020	100,000	300,000	5 Years	0.12	1.500%	30,000	40%	50%
8	Aug. 24, 2020	125,000	375,000	5 Years	0.12	1.875%	37,500	40%	50%
9	Sept. 14, 2020	150,000	450,000	5 Years	0.12	2.250%	45,000	40%	50%
10	Sept. 15, 2020	50,000	150,000	5 Years	0.12	0.750%	15,000	40%	50%
11	Sept. 15, 2020	50,000	150,000	5 Years	0.12	0.750%	15,000	40%	50%
12	Sept. 25, 2020	300,000	450,000	5 Years	0.12	4.500%	420,000	40%	50%
		\$ 1,925,000	5,325,000			28.875%	\$ 712,500		

NOTE 9 - STOCKHOLDERS’ DEFICIT

Board of Directors fees

On September 26, 2019, the board of directors granted to each of its directors warrants to purchase 500,000 shares of common stock at an exercise price of \$.08 per share. The warrants have a term of five years and vest immediately. The warrants were valued at \$192,614 using the Black Scholes pricing model relying on the following assumptions: volatility 185.11%; annual rate of dividends 0%; discount rate 1.66%. In addition, three (3) directors received \$10,000 for each annual term served.

On September 30, 2020, the board of directors granted to three of its directors warrants to purchase 500,000 shares of common stock and the Chairman of the Board warrants to purchase 10 million shares of common stock at an exercise price of \$.10 per share. The warrants have a term of five years and vest immediately. The warrants were valued at \$1,248,616 using the Black Scholes pricing model relying on the following assumptions: volatility 144.93%; annual rate of dividends 0%; discount rate 0.28%. In addition, each director is entitled to receive \$10,000 for each annual term served.

The Company recorded aggregate directors’ fees of \$1,272,866 and \$222,614 during the nine months ended September 30, 2020 and 2019, respectively, representing common stock warrants and cash fees paid or accrued.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 9 - STOCKHOLDERS' DEFICIT (Continued)

Stock Based Compensation

In May 2019, in connection with a Supply Chain Consulting Agreement, the Company issued a warrant to purchase 5,000,000 shares of common stock at an exercise price of \$.10 for a term of five years. The warrants were valued at \$529,023 using the Black Scholes pricing model relying on the following assumptions: volatility 181.49%; annual rate of dividends 0%; discount rate 2.34% (See Note 10).

Stock Issuances

During the nine months ended September 30, 2020, the Company issued 156,252 shares at \$.16 per share for proceeds of \$25,000, to private investors.

During the nine months ended September 30, 2019, the Company issued 26,500,000 shares of its common stock at \$.10 per share, for proceeds of \$2,650,000, to private investors. The Company also issued warrants to purchase 1,060,000 shares of common stock at an exercise price of \$.10 with a term of 5 years in connection with these issuances.

Stock Warrants Exercised

During the nine months ended September 30, 2020, HEP Investments, a principal shareholder and related party, assigned warrants to purchase 4,250,000 shares of the Company's Common Stock to third party investors. These warrants were exercised at \$.10 per share resulting in proceeds of \$425,000. Due to the nature of this transaction, the Company considered the warrants to be contributed capital from a majority shareholder and recorded equity related finance charges. The warrants were valued at \$495,501 using the Black Scholes pricing model relying on the following assumptions: volatilities ranging from 128.20% to 142.46%; annual rate of dividends 0%; discount rates ranging from 0.41% to 1.65%.

During the nine months ended September 30, 2020, warrants to purchase 5,600,000 shares of the Company's Common Stock were exercised on a "cashless" basis resulting in the issuance of 2,284,001 shares of common stock.

In addition, the Company issued 6,185,000 shares of the Company's Common Stock at an average price of \$.09 per share for proceeds of \$580,400 from the exercise of warrants.

Sale of Common Stock Warrants

In connection with the License Co-Development Participation Agreements ("Participation Agreements") (see Note 8), the Company sold warrants to purchase 5,325,000 shares of common stock for \$540,093. The warrants were valued based on the Black Scholes pricing model relying on the following assumptions: volatility 145.06% to 154.26%; annual rate of dividends 0%; discount rate 0.26% to 0.44%.

2019 Omnibus Long-Term Incentive Plan

On November 29, 2019, after approval from the Board, the Company entered into and adopted the 2019 Omnibus Long-Term Incentive Plan (the "2019 Incentive Plan") for the purpose of enhancing the Registrant's ability to attract and retain highly qualified directors, officers, key employees and other persons and to motivate such persons to improve the business results and earnings of the Company by providing an opportunity to acquire or increase a direct proprietary interest in the operations and future success of the Company. The 2019 Incentive Plan will be administered by the compensation committee of the Board who will, amongst other duties, have full power and authority to take all actions and to make all determinations required or provided for under the 2019 Incentive Plan. Pursuant to the 2019 Incentive Plan, the Company may grant options, share appreciation rights, restricted shares, restricted share units, unrestricted shares and dividend equivalent rights. The Plan has a duration of 10 years.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 9 - STOCKHOLDERS' DEFICIT (continued)

Subject to adjustment as described in the 2019 Incentive Plan, the aggregate number of common shares ("Shares") available for issuance under the 2019 Incentive Plan is One Hundred Two Million (102,000,000) Shares. The exercise price of each Share subject to an Option (as defined in the 2019 Incentive Plan) shall be at least the Fair Market Value (as defined in the 2019 Incentive Plan) (except in the case of an incentive stock option granted to more than 10% shareholder of the Company, in which case the price should not be less than 110% of the Fair Market Value) on the date of the grant of a Share and shall have a term of no more than ten years. As of September 30, 2020, 49,000,000 Options have been issued with terms between 5 years and 10 years. Based on certain performance milestones, the grant agreements also provide for the issuance of an additional 13,000,000 options of the Company's common stock at an exercise price of at least the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan) on the date of the grant of a Share and with a term of no more than ten years.

Common Stock Options

A summary of the status of the Company's Options related to the 2019 Incentive Plan is presented below:

	<u>September 30, 2020</u>		<u>December 31, 2019</u>	
	<u>Number of Options</u>	<u>Weighted Average Exercise Price</u>	<u>Number of Options</u>	<u>Weighted Average Exercise Price</u>
Outstanding, beginning of year	29,000,000	\$ 0.10	-	\$ -
Issued	20,000,000	0.14	29,000,000	0.10
Outstanding, end of period	<u>49,000,000</u>	<u>\$ 0.12</u>	<u>29,000,000</u>	<u>\$ 0.10</u>

Options outstanding and exercisable by price range as of September 30, 2020 were as follows:

<u>Outstanding Options</u>				<u>Exercisable Options</u>		
<u>Range of</u>	<u>Number</u>	<u>Average Weighted Remaining Contractual Life in Years</u>	<u>Exercise Price</u>	<u>Number</u>	<u>Weighted Average Exercise Price</u>	
\$ 0.10	28,000,000	9.13	\$ 0.10	28,000,000	\$	0.10
0.11	1,500,000	4.99	0.11	1,500,000		0.11
0.12	3,000,000	4.88	0.12	0		-
0.13	3,500,000	4.45	0.13	3,500,000		0.13
0.14	1,000,000	9.19	0.14	1,000,000		0.14
0.15	2,000,000	9.43	0.15	2,000,000		0.15
0.16	10,000,000	4.37	0.16	3,000,000		0.16
	<u>49,000,000</u>	<u>7.45</u>	\$ 0.12	<u>39,000,000</u>	\$	<u>0.11</u>

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 9 - STOCKHOLDERS' DEFICIT (continued)

Executive Compensation

On March 4, 2020, the Company entered into an employment letter with Philip Rice, Chief Financial Officer of the Company ("Agreement"). Under the terms of the Agreement, Mr. Rice will serve as Chief Financial Officer of the Company for one year, with successive automatic renewals for one year terms, unless either party terminates the Agreement on at least sixty days' notice prior to the expiration of the then current term of the Agreement. Mr. Rice will receive an annual base salary, commencing on January 1, 2020, of \$280,000 ("Base Salary"). The Base Salary shall increase to \$300,000, when the following event occurs: within one (1) year after the Effective Date, the Company enters into a term sheet and receives the related financing to receive at least \$15,000,000 in equity or other form of investment or debt ("Third Party Financing") on terms satisfactory to the board of directors of the Company (the "Board"). On the date the Agreement was executed, Mr. Rice received a \$25,000 retention bonus and was issued a fully-vested nonqualified stock option to purchase 2,000,000 shares of the Company's common stock at a price \$0.15 per share with a term of 10 years (these options were valued at \$297,248 using the Black Scholes pricing model relying on the following assumptions: volatility 163.68%; annual rate of dividends 0%; discount rate 1.02%).

Mr. Rice shall also receive a bonus of \$50,000 and a fully-vested nonqualified stock option to purchase 2,000,000 shares of the Company's common stock exercisable at a price equal to the sixty (60) day trailing quoted price of the Common Stock of the Company in the OTC market, 10 year term, upon the closing, prior to December 31, 2020, of Third Party Financing which raises at least \$15,000,000, as long as Mr. Rice was employed at the time of closing or was employed within one year prior to the closing. If, upon the closing prior to December 31, 2021 of Third Party Financing which raises at least \$10,000,000 for the Company, Mr. Rice shall receive an additional bonus of \$50,000, as long as Mr. Rice was employed at the time of closing or if employed within one year prior to the closing.

Mr. Rice's Agreement provides that if a Change of Control (as defined in the Agreement) occurs and Mr. Rice resigns for Good Reason (as defined in the Agreement) or Mr. Rice's employment is terminated without Cause (as defined in the Agreement) during the 24-month period following the Change of Control or during the sixty (60) days immediately preceding the date of a Change of Control, 100% of Mr. Rice's unvested options will be fully vested and the restrictions on his restricted shares will lapse. Mr. Rice's Agreement also provides for severance payments of, amongst other things, a lump sum payment of 300% of base salary and payment of 24 months of the base salary in such event.

Mr. Rice will receive the following severance benefits following a termination (as defined) of employment: a continuation of his Base Salary for one (1) year and a fully-vested, nonqualified stock option to purchase 1,000,000 shares of the Company's common stock at a price equal to the sixty (60) day trailing quoted price of the Common Stock of the Company in the OTC market, 10 year term.

Prior to this Agreement, as compensation for serving as Chief Financial Officer, the Company, quarterly, issued warrants to purchase 50,000 shares of common stock to Philip M. Rice at the prevailing market price with a term of 5 years, provided that the preceding quarterly and annual filings were submitted in a timely and compliant manner, at which time such warrants would vest. On February 12, 2019, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.10. The warrants were valued at \$4,766 using the Black Scholes pricing model relying on the following assumptions: volatility 180.46%; annual rate of dividends 0%; discount rate 2.53%. On May 13, 2019, the Company issued the CFO warrants to purchase 50,000 shares of common stock at \$.10. The warrants were valued at \$4,800 using the Black Scholes pricing model relying on the following assumptions: volatility 181.72%; annual rate of dividends 0%; discount rate 2.18%.

Employment Agreements

In the nine months ended September 30, 2020, the Company entered into Employment Letters ("Agreements") with five of its employees. The Agreements provide, among other items, for immediate issuance of 7,250,000 options of the Company's common stock at an exercise price of at least the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan) on the date of the grant of a Share and shall have a term of five years (these options were valued at \$1,581,776 using the Black Scholes pricing model relying on the following assumptions: volatility 145.44% and 184.19%; annual rate of dividends 0%; discount rate 0.28% and 2.31%). Based on certain performance milestones, the Agreements also provide for the issuance of an additional 10,000,000 options of the Company's common stock at an exercise price of at least the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan) on the date of the grant of a Share and shall have a term of five years. The agreements provide for a base salary and cash performance bonuses. The vesting of the 10,000,000 options for the year ends are as follows: 2020: 1,750,000; 2021: 5,500,000 and 2022: 2,750,000.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 9 - STOCKHOLDERS' DEFICIT (continued)

Common Stock Warrants

A summary of the status of the Company's warrants is presented below:

	September 30, 2020		December 31, 2019	
	Number of Warrants	Weighted Average Exercise Price	Number of Warrants	Weighted Average Exercise Price
Outstanding, beginning of year	194,204,339	\$ 0.09	192,148,956	\$ 0.09
Issued	16,825,000	0.12	12,783,672	0.10
Exercised	(11,815,000)	0.10	(9,688,917)	0.10
Cancelled	-	-	(345,205)	0.11
Expired	(2,667,333)	0.08	(694,167)	0.17
Outstanding, end of period	<u>196,547,006</u>	<u>\$ 0.09</u>	<u>194,204,339</u>	<u>\$ 0.09</u>

Warrants outstanding and exercisable by price range as of September 30, 2020 were as follows:

Outstanding Warrants			Exercisable Warrants		
Exercise Price	Number	Weighted Remaining Contractual Life in Years	Exercise Price	Number	Weighted Average Exercise Price
\$ 0.05	1,000,000	0.95	\$ 0.05	1,000,000	\$ 0.05
0.06	16,050,000	1.84	0.06	16,050,000	0.06
0.07	2,500,000	1.95	0.07	2,500,000	0.07
0.08	30,468,477	1.71	0.08	30,468,477	0.08
0.09	225,000	1.06	0.09	225,000	0.09
0.10	124,573,734	2.61	0.10	124,573,734	0.10
0.11	3,704,795	3.48	0.11	3,704,795	0.11
0.12	15,375,000	4.93	0.12	15,375,000	0.12
0.14	2,550,000	3.00	0.14	2,550,000	0.14
0.18	400,000	4.24	0.18	400,000	0.18
	<u>196,547,006</u>	<u>2.60</u>		<u>196,547,006</u>	<u>\$ 0.09</u>

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 10- COMMITMENTS AND CONTINGENCIES

Dahl Employment Agreement

The Company's Chief Executive Officer, Andrew Dahl, is serving as Chief Executive Officer under the terms of an employment agreement dated November 29, 2019 ("Agreement") that superseded and replaced all prior employment agreements and understandings. Under the terms of the Agreement, Mr. Dahl's agreement provides for a term of three years, with successive automatic renewals for one year terms, unless either party terminates the Dahl Agreement on at least 60 days' notice prior to the expiration of the then current term of Mr. Dahl's employment. Mr. Dahl has received an annual base salary, commencing on June 1, 2019, of \$440,000 ("Base Salary"), of which \$7,500 per month will be deferred until either of the following events occur: (i) within five (5) years after the Effective Date, the Company enters into a term sheet to receive at least \$25,000,000 in equity or other form of investment or debt on terms satisfactory to the board of directors of the Company (the "Board") including funding at closing on such terms of at least \$10 million; or (ii) within twelve (12) months after the Effective Date that the Company receives revenues of at least \$10 million. The Company has accrued \$120,000 of the deferred salary as of September 30, 2020, reflected in accrued expenses on the Balance Sheet. The Base Salary is subject to annual review and increase (but not decrease) by the Board during the Employment Term with minimum annual increases of 4% over the previous year's Base Salary.

Mr. Dahl is entitled to a Revenue Bonus (as defined in the Agreement) equal to 2% of the Company's revenue contribution in accordance with a formula as detailed in the Agreement. No Revenue Bonus is payable in any year where there is an Operating Net Loss (as defined in the Agreement). For the 2020 fiscal year (January 1, 2020 to December 31, 2020) ("Year One"), the Company shall pay Mr. Dahl a bonus equal to 50% of his Base Salary if the Company achieves revenues for Year One which are (w) at least \$500,000; and (x) greater than that for the 12-month period immediately preceding Year One. In addition, for 2021 fiscal year (January 1, 2021 through December 31, 2021) ("Year Two"), the Company shall pay Mr. Dahl a bonus equal to 50% of the Base Salary if the Company achieves revenues for Year Two which are (y) at least \$500,000; and (z) greater than that for Year One.

Mr. Dahl was awarded a non-qualified option to purchase 28 million shares of the Company's common stock at a price equal to the greater of \$0.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan).

Mr. Dahl will be entitled to non-qualified performance-based options having an exercise price equal to the greater of \$.10 per share and the Fair Market Value (as defined in the 2019 Omnibus Long-term Incentive Plan), upon the attainment of specified milestones as follows: (i) Non-qualified option to purchase 1,000,000 common shares upon identification of bioactive agents in the Company product and filing of a patent with respect thereto; (ii) Non-qualified option to purchase 1,500,000 common shares upon entering into a contract under which the Company receives at least \$500,000 in cash payments; (iii) Non-qualified option to purchase 1,500,000 common shares upon the Company entering into a co-development agreement with a research company to develop medicinal or pharmaceutical applications (where the partner provides at least \$2 million in cash or in-kind outlays); (iv) Non-qualified option to purchase 1,500,000 common shares upon the Company entering into a co-development agreement for nutraceutical or dietary supplement applications (where the partner provides at least \$2 million in cash or in-kind outlays); and (v) Non-qualified option to purchase 1,500,000 common shares upon the Company entering into a pharmaceutical development agreement.

As it relates to the Company's wholly-owned subsidiary, Wellmetrix, LLC ("Wellmetrix"), if and when at least \$2 million in equity capital is raised from a third party and invested in Wellmetrix in an arms-length transaction, Mr. Dahl shall be granted a warrant to purchase an equity interest in Wellmetrix that is equal to the equity interest in Wellmetrix owned by the Company at the time of the first tranche of any such capital raise (the "Wellmetrix Warrant"). The Wellmetrix Warrant shall be fully vested as of the date it is granted and shall expire on the tenth (10th) anniversary of the grant date. Once granted, the Wellmetrix Warrant may be exercised from time to time in whole or in part, with Mr. Dahl retaining any unexercised portion. The exercise price for the Wellmetrix Warrant shall be equal to the fair market value of the interest in Wellmetrix implied by the pricing of the first tranche of any such capital raise.

Mr. Dahl's Employment Agreement provides that if a Change of Control (as defined in the Agreement) occurs Mr. Dahl's employment is terminated without Cause (as defined in the Agreement) or Mr. Dahl resigns for Good Cause (as defined in the Dahl Agreement) during the 24-month period following the Change of Control or during the sixty (60) days immediately preceding the date of a Change of Control, 100% of Mr. Dahl's unvested options will be fully. Mr. Dahl's Employment Agreement also provides for severance payments of, amongst other things, 300% of base salary and 2x the amount of the Revenue Bonus in such event.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 10- COMMITMENTS AND CONTINGENCIES (Continued)

As of December 31, 2019, the milestone relating to the identification of bioactive agents in the Company product and the filing of a patent with respect thereto was met, thereby triggering the option to purchase 1,000,000 common shares. As per the Agreement, the Company issued a non-qualified option to purchase 1 million shares of the Company according to the 2019 Incentive Plan at an exercise price of \$.14 with a term of 10 years (these options were valued at \$138,806 using the Black Scholes pricing model relying on the following assumptions: volatility 164.37%; annual rate of dividends 0%; discount rate 1.84%).

The Company issued a non-qualified option to purchase 28 million shares of the Company according to the 2019 Incentive Plan at an exercise price of \$.10 with a term of 10 years (these options were valued at \$2,497,161 using the Black Scholes pricing model relying on the following assumptions: volatility 164.20%; annual rate of dividends 0%; discount rate 1.84%).

Corporate Advisory Agreement

On September 30, 2019, effective July 9, 2019, the Company entered into an agreement with an Investment Opportunity Provider (IOP). The IOP has been engaged as an exclusive financial advisor in connection with the proposed securities offering and sale of up to \$35 million of the Company's Common Stock. The Company has agreed to pay the IOP, upon the acceptance of a successful funding transaction, a fee of 1% of the aggregate value of the transaction and a warrant to purchase up to 6,000,000 shares of common stock at an exercise price of \$.10 for a term of five years. As of September 30, 2020, in connection with this agreement, no successful funding transactions have taken place and no warrants have been issued.

Financial Consulting Agreement – May 2020

On May 4, 2020, the Company entered into a Financial Consulting and Corporate Advisory Agreement ("Agreement"). The Agreement calls for a non-refundable initial fee of \$25,000 and two additional monthly fees of \$15,000 per month. To the extent a transaction (defined as the sale of equity securities, hybrid debt and equity securities or the entering into any fund capital, joint venture, buy out, or similar transactions) is entered into, then the Company will pay an 8% fee based on the value of the transaction. A 50% credit of the initial fee and monthly fees will be credited against the 8% fee. This Agreement can be cancelled at any time by either party, however, there is a 24-month period where the 8% transaction will be payable based on identified transaction participants. This Agreement was cancelled in July 2020.

Financial Consulting Agreement – July 2020

On July 16, 2020, the Company entered into an Advisory Agreement ("Agreement"). The Agreement calls for monthly fees of \$10,000 per month. The Agreement is on a month to month renewal basis. Upon each renewal (starting with the second month), the Company shall issue a warrant to purchase 150,000 shares of common stock at an exercise price of \$.12 for a term of five years. The Company issued warrants to purchase 300,000 shares of common stock at an exercise price of \$.12 for a term of five years valued at \$30,846 using the Black Scholes pricing model relying on the following assumptions: volatility 144.93% to 145.50%; annual rate of dividends 0%; discount rate 0.29%. The Company terminated this Agreement in October 2020.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 10- COMMITMENTS AND CONTINGENCIES (Continued)

Supply Chain Consulting Agreement

On February 27, 2019, the Company entered into a Supply Chain Consulting Agreement with a consultant (“Consultant”) (see Note 8 – Stockholders’ Deficiency). In May 2019, the Company issued a warrant to purchase 5,000,000 shares of common stock at an exercise price of \$.10 for a term of five years to the Consultant. The warrants were valued at \$529,023 using the Black Scholes pricing model relying on the following assumptions: volatility 181.49%; annual rate of dividends 0%; discount rate 2.34%. In October 2019, 2,000,000 of those warrants were returned to the Company resulting in a reduction in the value of \$211,609. On September 14, 2019, the parties entered into a First Amendment to the Supply Chain Consulting Agreement (“Supply Consulting Agreement Amendment”). The Supply Consulting Agreement Amendment provides that the Consultant will identify and help negotiate the terms of potential joint ventures involving algae production development projects or related transactions or business combinations (“Development Project”). The Supply Consulting Agreement provides for exclusivity in Southeast Asia; Oceania; Indian subcontinent; and Africa; with regions in the Middle East by mutual agreement. The closing of a Development Project (as acceptable to the Company) is defined as the date that the Company is able, financially and otherwise, to proceed with engineering and construction of algae production facilities, processing or warehousing facilities and supply chain development, or related business combinations rendering an equivalent outcome (in the reasonable determination of the Company), for the production, processing, transport, compliance, marketing and resale of its proprietary algae biomass. Upon the closing of a Development Project, the Company will pay cash fees of \$300,000 to Consultant, pay an on-going monthly fee of \$50,000 for 24 months and issue to Consultant a cashless warrant with a five-year term to purchase nineteen million (19,000,000) shares of the Company’s common stock at an exercise price of \$0.10 per share. As of September 30, 2020, the Development Project has not closed, and the warrants have not yet been issued. The Board of Directors has also authorized the Company to issue to Consultant a cashless warrant with a five-year term to purchase 1,000,000 shares of the Company’s common stock at an exercise price of \$0.10 per share at its discretion. As of September 30, 2020, such warrant has not been issued.

Marketing / Public Relations Agreement

On December 27, 2019, the Company entered into a Marketing / Public Relations Agreement (“Agreement”) with a consultant (“Consultant”). The Agreement provides that the Consultant will assist the Company in identifying and assist in the negotiation of potential licensing, product sales, joint ventures and venture financing of projects outside of the United States and provide advice for the Company’s long-term business strategy and commercial relationships. The Agreement calls for the issuance of warrants to purchase up to 5,000,000 shares of the Company’s common stock at an exercise price based on the closing market price on the day of issuance, with a five-year term. For commercial transactions whose value is determined and agreed to by both parties exceeding \$1,000,000 (“Qualifying Transaction”), the Company shall issue to Consultant a warrant to purchase common stock in the amount of 500,000 shares. For each successive Qualifying Transaction of at least \$1,000,000, the Consultant shall be issued 300,000 shares up to a maximum cumulative award of 5,000,000 shares in warrant form in total. Further, the Company will pay a 4% commission on the revenue received on the sale of Company algal product to one or more entities identified and cultivated by Consultant, and on the revenue received from licensing the Company’s intellectual property to such entities identified and cultivated by Consultant, for a period of three (3) years from the effective date of a qualifying transaction. The Agreement also calls for a \$5,000 payment upon signing and monthly payments of \$5,000 once a Qualifying Transaction, the sale of an algal product or revenue from a licensing transaction occurs. As of September 30, 2020, a commercial transaction has not closed, and the warrants have not yet been issued and no commissions have been paid.

Legal Contingencies

We may become a party to litigation in the normal course of business. In the opinion of management, there are no legal matters involving us that would have a material adverse effect upon our financial condition, results of operation or cash flows.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 11 - RELATED PARTY TRANSACTIONS

Due to Related Party

See Note 4 Due to Related Party for disclosure of payable to related Party.

Loan Payable – Related Party

See Note 5 Loan Payable – Related Parties for disclosure of loans payable to related Parties.

Executive Compensation

See Note 9 – Stockholder’ Deficiency for disclosure of compensation to the Chief Financial Officer.

Employment Agreement

See Note 10 – Commitments and Contingencies for disclosure of the Employment Agreement with the Chief Executive Officer.

NOTE 12 – SUBSEQUENT EVENTS

Loan Payable - Related Party:

Christopher Maggiore

On October 21, 2020, Christopher Maggiore converted \$1,254 of its accrued interest expense on loans payable into 12,537 shares of the Company’s common stock at \$.10 per share.

HEP Investments, LLC

On October 4, 2020, HEP Investments, LLC converted \$100,000 of its Loan Payable into a License Co-Development Participation Agreement (“Agreement”). The net amount remaining of \$9,000 remains recorded as a Loan Payable, Related Party.

The Agreement provides for, among other items, the partner (the “Participant”) to participate in the fees (the “Fees”) from licensing or selling bioactive ingredients or molecules derived from the Company’s algae cultures. Based upon the agreement signed, the Company will issue to the Participant warrants with a five-year term to purchase 300,000 shares of the Company’s common stock at an exercise price of \$0.12 per share and provide to the Participant a 1.50% “Revenue Share” of all license fees generated by ZIVO from any Licensee.

The Agreement allows the Company the Option to buy back the right, title and interest in the Revenue Share for an amount equal to the amount funded plus a forty percent (40%) premium. Pursuant to the terms of the Agreement, the Company may not exercise its Option until it has paid the Participant a revenue share equal to a minimum of thirty percent (30%) of the amount initially funded. Once this minimum threshold is met, the Company may exercise its Option by delivering written notice to the Participant of its intent to exercise the Option, along with repayment terms of the amount funded, which may be paid, in the Company’s sole discretion, in one lump sum or in four (4) equal quarterly payments. If the Company does not make such quarterly payments timely for any quarter, then the Company shall pay the prorated Revenue Share amount, retroactive on the entire remaining balance owed, that would have been earned during such quarter until the default payments have been made and the payment schedule is no longer in default.

Deferred Revenue - Participation Agreement – Related Party:

On October 8, 2020, Strome Mezzanine Fund, LP entered into a License Co-Development Participation Agreement (“Agreement”) for \$500,000. The Agreement provides for, among other items, the partner (the “Participant”) to participate in the fees (the “Fees”) from licensing or selling bioactive ingredients or molecules derived from the Company’s algae cultures. Based upon the agreements signed to date, the Company will issue to the Participant warrants with a five-year term to purchase 1,500,000 shares of the Company’s common stock at an exercise price of \$0.12 per share and provide to the Participant a 7.50% “Revenue Share” of all license fees generated by ZIVO from any Licensee.

ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 12 – SUBSEQUENT EVENTS (Continued)

The Agreement allows the Company the Option to buy back the right, title and interest in the Revenue Share for an amount equal to the amount funded plus a forty percent (40%) premium. Pursuant to the terms of the Agreements, the Company may not exercise its Option until it has paid the Participant a revenue share equal to a minimum of thirty percent (30%) of the amount initially funded. Once this minimum threshold is met, the Company may exercise its Option by delivering written notice to the Participant of its intent to exercise the Option, along with repayment terms of the amount funded, which may be paid, in the Company's sole discretion, in one lump sum or in four (4) equal quarterly payments. If the Company does not make such quarterly payments timely for any quarter, then the Company shall pay the prorated Revenue Share amount, retroactive on the entire remaining balance owed, that would have been earned during such quarter until the default payments have been made and the payment schedule is no longer in default.

Deferred Revenue - Participation Agreement:

From October 1, 2020 through the date of this filing, the Company entered into two License Co-Development Participation Agreements ("Agreements") for \$300,000. The Agreements provide for, among other items, the partners (the "Participants") to participate in the fees (the "Fees") from licensing or selling bioactive ingredients or molecules derived from the Company's algae cultures. Based upon the agreements signed to date, the Company will issue to the Participants warrants with a five-year term to purchase 900,000 shares of the Company's common stock at an exercise price of \$0.12 per share and provide to the Participants a 4.50% "Revenue Share" of all license fees generated by ZIVO from any Licensee.

The Agreements allows the Company the Option to buy back the right, title and interest in the Revenue Share for an amount equal to the amount funded plus a forty percent (40%) premium. Pursuant to the terms of the Agreements, the Company may not exercise its Option until it has paid the Participant a revenue share equal to a minimum of thirty percent (30%) of the amount initially funded. Once this minimum threshold is met, the Company may exercise its Option by delivering written notice to the Participant (s) of its intent to exercise the Option, along with repayment terms of the amount funded, which may be paid, in the Company's sole discretion, in one lump sum or in four (4) equal quarterly payments. If the Company does not make such quarterly payments timely for any quarter, then the Company shall pay the prorated Revenue Share amount, retroactive on the entire remaining balance owed, that would have been earned during such quarter until the default payments have been made and the payment schedule is no longer in default.

Financial Consulting Agreement – July 2020

As discussed in NOTE 10 – COMMITMENTS AND CONTINGENCIES, in July 2020, the Company entered into an Advisory Agreement ("Agreement"). In October, the Company issued a warrant to purchase 150,000 shares of common stock at an exercise price of \$.12 for a term of five years. The Company terminated this Agreement in October 2020.

Stock Issuances

From October 1, 2020 through the date of this filing, the Company received proceeds of \$265,000 from the issuance of 2,650,000 shares of common stock at \$.10 per share.



Units

Each Consisting of

One Share of Common Stock and

One Warrant to Purchase One Share of Common Stock

PROSPECTUS

Lead Book-Running Manager

Maxim Group LLC

Co-Book-Running Manager

Joseph Gunnar & Co. LLC

_____, 2020

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 underwriting discounts and commissions, 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	\$	2,605.31
FINRA filing fee		4,082.00
Nasdaq listing fee		*
Legal fees and expenses		*
Accounting fees and expenses		*
Printing and engraving expenses		*
Transfer agent and registrar fees		*
Miscellaneous expenses		*
Total	\$	*

*To be completed by amendment.

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 sold since January 1, 2017 without registration under the Securities Act of 1933, as amended (the “Securities Act”):

Common Stock:

Name	Form	Date	Common Stock Shares	Amount Received
Mariam Tauber	Issuance of Common Stock	07-Mar-17	125,000	\$11,250
David Lopez	Issuance of Common Stock	07-Mar-17	125,000	\$11,250
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	31-Mar-17	450,000	\$36,000
Newbridge Securities Corp.	Issuance of Common Stock	18-Apr-17	1,875,000	\$131,250
HEP Investments LLC	Conversion of loan payable and accrued interest	14-Jul-17	300,000	\$30,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	14-Jul-17	128,571	\$9,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	24-Jul-17	514,286	\$36,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	07-Sep-17	128,571	\$9,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	25-Sep-17	514,286	\$36,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	20-Nov-17	200,000	\$18,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	08-Feb-18	90,000	\$9,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	26-Mar-18	90,000	\$9,000
HEP Investments LLC	Conversion of loan payable and accrued interest	12-Apr-18	392,310	\$39,231
Sean Sanford	Purchase of Common Stock	17-Apr-18	250,000	\$25,000
Christopher Maggiore	Purchase of Common Stock	01-May-18	5,000,000	\$500,000
HEP Investments, LLC	Common Stock Issued for Financing Costs - HEP Investments	08-May-18	100,000	\$9,000
Mark E. Strome Living Trust	Purchase of Common Stock	11-May-18	8,819,966	\$881,997
Mark E. Strome Living Trust	Purchase of Common Stock	23-May-18	4,268,163	\$426,816
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	05-Jun-18	207,692	\$27,000
Al Abdelnour	Purchase of Common Stock	11-Jul-18	300,000	\$30,000
Sea Green Investments	Purchase of Common Stock	13-Aug-18	4,200,000	\$420,000
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	24-Sep-18	33,750	\$5,400
Adolfo Carmona	Conversion of loan payable and accrued interest	24-Sep-18	3,000,000	\$300,000
Adolfo Carmona	Conversion of loan payable and accrued interest	24-Sep-18	642,800	\$64,280
HEP Investments LLC	Common Stock Issued for Financing Costs - HEP Investments	02-Nov-18	35,692	\$4,997
Athar Siddiqui	Purchase of Common Stock	05-Nov-18	500,000	\$50,000
John Mansour	Purchase of Common Stock	28-Nov-18	500,000	\$50,000
Sean Sanford	Purchase of Common Stock	18-Dec-18	500,000	\$50,000
HEP Investments, LLC	Purchase of Common Stock	20-Dec-18	10,000,000	\$1,000,000
Mike Yaloo	Purchase of Common Stock	28-Feb-19	500,000	\$50,000
Young Kuk Chang	Purchase of Common Stock	15-Mar-19	1,000,000	\$100,000
HEP Investments, LLC	Conversion of loan payable and accrued interest	31-Mar-19	4,649,291	\$464,929
MKY FTS	Purchase of Common Stock	04-Apr-19	150,000	\$15,000
MKY FTS	Purchase of Common Stock	10-Apr-19	100,000	\$10,000
Cypress Cove	Purchase of Common Stock	16-Apr-19	400,000	\$40,000
HEP Investments, LLC	Purchase of Common Stock	16-Apr-19	400,000	\$40,000
HEP Investments, LLC	Purchase of Common Stock	19-Apr-19	250,000	\$25,000
Sea Green Investments	Purchase of Common Stock	01-May-19	4,500,000	\$450,000
Ted Kennedy	Purchase of Common Stock	03-May-19	200,000	\$20,000
John Katoula	Purchase of Common Stock	14-May-19	170,000	\$17,000
Young Kuk Chang	Purchase of Common Stock	16-May-19	1,500,000	\$150,000
In Jee Ra	Purchase of Common Stock	16-May-19	100,000	\$10,000
Pok Su Chang	Purchase of Common Stock	21-May-19	400,000	\$40,000
J Abreu Investments LLC	Purchase of Common Stock	30-May-19	1,000,000	\$100,000
HEP Investments, LLC	Purchase of Common Stock	05-Jun-19	250,000	\$25,000
HEP Investments, LLC	Conversion of loan payable and accrued interest	17-Jun-19	120,802,980	\$12,080,298
HEP Investments, LLC	Conversion of loan payable and accrued interest	17-Jun-19	22,644,696	\$2,264,470
Travis Heidt	Purchase of Common Stock	19-Jun-19	100,000	\$10,000
Terry Farida	Purchase of Common Stock	25-Jun-19	2,500,000	\$250,000
HEP Investments, LLC	Purchase of Common Stock	11-Jul-19	250,000	\$25,000
Cypress Cove	Purchase of Common Stock	11-Jul-19	250,000	\$25,000
Clint Mansour	Purchase of Common Stock	23-Jul-19	2,425,000	\$242,500
Hani Mansour	Purchase of Common Stock	23-Jul-19	1,000,000	\$100,000
Brian Tomina	Purchase of Common Stock	23-Jul-19	300,000	\$30,000
Chris Barbat	Purchase of Common Stock	23-Jul-19	825,000	\$82,500
Nick Suci III	Purchase of Common Stock	23-Jul-19	250,000	\$25,000
Nick Suci	Purchase of Common Stock	29-Jul-19	250,000	\$25,000
Eric Marchewitz	Purchase of Common Stock	08-Aug-19	680,000	\$68,000
Rochelle Meyer	Purchase of Common Stock	09-Aug-19	500,000	\$50,000
Pok Su Chang	Purchase of Common Stock	14-Aug-19	950,000	\$95,000
HEP Investments, LLC	Purchase of Common Stock	20-Sep-19	5,300,000	\$530,000
Christopher Maggiore	Conversion of loan payable and accrued interest	25-Sep-19	1,764,050	\$176,405
Christopher Maggiore	Conversion of loan payable and accrued interest	25-Sep-19	1,354,309	\$135,431
Ryan Rosett	Warrant exercise from Warrant transfer	25-Oct-19	1,000,000	\$100,000
Charles Orchard	Warrant exercise from Warrant transfer	01-Nov-19	550,000	\$55,000
HEP Investments, LLC	Conversion of loan payable and accrued interest	13-Nov-19	1,800,000	\$180,000
HEP Investments, LLC	Conversion of loan payable and accrued interest	13-Nov-19	248,050	\$24,805
HEP Investments LLC	Warrant exercise	14-Nov-19	618,750	\$50,000

Cory Mann	Warrant exercise	03-Dec-19	500,000	\$75,000
Scott Zack	Warrant exercise	18-Dec-19	1,000,000	\$100,000
HEP Participant LLC	Warrant exercise	19-Dec-19	6,020,167	\$602,017
HEP Investments, LLC	Conversion of loan payable and accrued interest	31-Dec-19	20,000,000	\$2,000,000
HEP Investments LLC	Conversion of loan payable and accrued interest	31-Dec-19	7,247,777	\$724,778
Alex Oakes	Warrant exercise from Warrant transfer	13-Jan-20	1,000,000	\$100,000
Santa Marina Group	Conversion of loan payable and accrued interest	15-Jan-20	681,124	\$68,113
Apregan Family Trust	Conversion of loan payable and accrued interest	15-Jan-20	681,124	\$68,113
Thomas Cox	Warrant exercise (cashless)	17-Jan-20	102,941	-
Minish Joe Hede	Warrant exercise (cashless)	17-Jan-20	48,750	-
Cory Mann	Warrant exercise (cashless)	17-Jan-20	1,725,000	-
Timothy Eliot-Cone	Warrant exercise from Warrant transfer	27-Jan-20	500,000	\$50,000
Santa Marina Group	Warrant exercise	27-Jan-20	5,000	\$500
Apregan Family Trust	Warrant exercise	27-Jan-20	5,000	\$500
Nicholas Stone	Warrant exercise from Warrant transfer	11-Feb-20	500,000	\$50,000
Michael Gildea	Warrant exercise from Warrant transfer	18-Feb-20	1,000,000	\$100,000
Jascha Raadtgever	Warrant exercise from Warrant transfer	28-Feb-20	250,000	\$25,000
John Katoula	Purchase of Common Stock	09-Mar-20	156,252	\$25,000
Javier Abreu	Warrant exercise from Warrant transfer	17-Mar-20	500,000	\$50,000
Nola Masterson	Warrant exercise (cashless)	08-Apr-20	318,182	-
Cory Mann	Warrant exercise	14-Apr-20	1,875,000	\$150,000
Michael Silverstein	Warrant exercise from Warrant transfer	08-May-20	50,000	\$4,400
Jeanye Irwin	Warrant exercise from Warrant transfer	11-May-20	500,000	\$50,000
Cory Mann	Warrant exercise (cashless)	26-Jun-20	15,455	-
Nola Masterson	Warrant exercise (cashless)	27-Aug-20	41,667	-
Christopher Maggioro	Warrant exercise	15-Sep-20	200,000	\$20,000
Christopher Maggioro	Warrant exercise (cashless)	15-Sep-20	3,704	-
Philip Rice	Warrant exercise (cashless)	15-Sep-20	14,151	-
John Payne	Warrant exercise (cashless)	21-Sep-20	14,151	-
Yun il yi	Purchase of Common Stock	07-Oct-20	1,000,000	\$100,000
Christopher Maggioro	Purchase of Common Stock	21-Oct-20	12,537	\$1,254
Alex Oakes	Purchase of Common Stock	22-Oct-20	400,000	\$40,000
Steve Kalabat	Purchase of Common Stock	22-Oct-20	150,000	\$15,000
Platform Securities Nominees Ltd	Purchase of Common Stock	23-Oct-20	600,000	\$60,000
Penelope Mountbatten	Purchase of Common Stock	27-Oct-20	500,000	\$50,000

Warrant Issuances:

Name	Date	Exercise Price	Shares Underlying Warrant	Consideration
Jack Chiayat	02/27/17	\$0.100	500,000	Service as Consultant
Philip Rice	03/31/17	\$0.080	50,000	Service as Employee
HEP Investments	03/31/17	\$0.100	1,000,000	Per Loan Agreement
NutriQuest	04/20/17	\$0.080	687,227	License Agreement
Philip Rice	05/12/17	\$0.090	50,000	Service as Employee
Cypress Cove	08/03/17	\$0.060	16,000,000	Service as Consultant
Philip Rice	08/13/17	\$0.060	50,000	Service as Employee
HEP Investments	09/07/17	\$0.100	250,000	Per Loan Agreement
Rafe Fogel	09/07/17	\$0.070	250,000	Service as Consultant
Paul Wooley	09/07/17	\$0.070	250,000	Service as Consultant
Nola Masterson	09/11/17	\$0.070	500,000	Service on Board of Directors
Chris Maggiore	09/11/17	\$0.070	500,000	Service on Board of Directors
John Payne	09/11/17	\$0.070	500,000	Service on Board of Directors
Philip Rice	09/11/17	\$0.070	500,000	Service on Board of Directors
Robert Rondeau	09/11/17	\$0.070	500,000	Service on Board of Directors
Andrew Dahl	11/08/17	\$0.080	10,000,000	Service as Employee
Philip Rice	11/08/17	\$0.080	6,000,000	Service as Employee
Philip Rice	10/19/17	\$0.090	50,000	Service as Employee
HEP Investments	11/20/17	\$0.100	25,000,000	Per Loan Agreement
HEP Investments	11/20/17	\$0.100	25,000,000	Per Loan Agreement
HEP Investments	11/20/17	\$0.100	500,000	Per Loan Agreement
Next One Corp (Kevin Graetz)	12/13/17	\$0.100	300,000	Service as Consultant
MKM3 (Joe Hede)	12/13/17	\$0.100	300,000	Service as Consultant
Adam Chiasson	01/16/18	\$0.100	500,000	Service as Employee
HEP Investments	01/25/18	\$0.100	3,250,000	Per Loan Agreement
Philip Rice	02/21/18	\$0.110	50,000	Service as Employee
Cascade	02/21/18	\$0.100	2,326,504	Compensation as Investment Banker
HEP Investments	03/26/18	\$0.100	250,000	Per Loan Agreement
HEP Investments	05/16/18	\$0.100	5,000,000	Per Loan Agreement
HEP Investments	05/08/18	\$0.100	250,000	Per Loan Agreement
Philip Rice	04/23/18	\$0.100	50,000	Service as Employee
Sean Sanford	04/17/18	\$0.100	50,000	20% Warrant coverage on stock purchase
HEP Investments	06/07/18	\$0.100	16,000,000	Per Loan Agreement
HEP Investments	06/07/18	\$0.100	9,000,000	Per Loan Agreement
HEP Investments	06/07/18	\$0.100	750,000	Per Loan Agreement
William Pfund	04/01/18	\$0.110	500,000	Service as Employee
Ronald Costephens	06/19/18	\$0.110	1,000,000	Service as Employee
Wendy Chiao	06/19/18	\$0.110	1,000,000	Service as Consultant
Chris Maggiore	05/01/18	\$0.100	1,000,000	20% Warrant coverage on stock purchase
HEP Investments	07/24/17	\$0.100	1,000,000	Per Loan Agreement
HEP Investments	09/25/17	\$0.100	1,000,000	Per Loan Agreement
Philip Rice	08/14/18	\$0.120	50,000	Service as Employee
Nola Masterson	09/28/18	\$0.140	500,000	Service on Board of Directors
Chris Maggiore	09/28/18	\$0.140	500,000	Service on Board of Directors
John Payne	09/28/18	\$0.140	500,000	Service on Board of Directors
Philip Rice	09/28/18	\$0.140	500,000	Service on Board of Directors
Robert Rondeau	09/28/18	\$0.140	500,000	Service on Board of Directors
HEP Investments	09/24/18	\$0.100	150,000	Per Loan Agreement
HEP Investments	11/02/18	\$0.100	138,801	Per Loan Agreement
Philip Rice	11/14/18	\$0.140	50,000	Service as Employee
HEP Invest	12/20/18	\$0.100	25,000,000	Per Loan Agreement
Cascade	12/31/18	\$0.100	3,007,557	Compensation as Investment Banker
Philip Rice	02/13/19	\$0.100	50,000	Service as Employee
Aegle Partners 2 LLC	05/02/19	\$0.100	5,000,000	Service as Consultant
Philip Rice	05/13/19	\$0.100	50,000	Service as Employee
Philip Rice	08/07/19	\$0.100	50,000	Service as Employee
Mark Barker	08/14/19	\$0.100	3,000,000	Service as Consultant
Nola Masterson	09/26/19	\$0.080	500,000	Service on Board of Directors
Chris Maggiore	09/26/19	\$0.080	500,000	Service on Board of Directors
John Payne	09/26/19	\$0.080	500,000	Service on Board of Directors
Philip Rice	09/26/19	\$0.080	500,000	Service on Board of Directors
Robert Rondeau	09/26/19	\$0.080	500,000	Service on Board of Directors
Chris Maggiore	09/25/19	\$0.100	623,672	20% Warrant coverage on stock purchase
HEP Investments	09/20/19	\$0.100	1,060,000	20% Warrant coverage on stock purchase
Philip Rice	10/28/19	\$0.080	50,000	Service as Employee
Cory Mann	12/27/19	\$0.180	400,000	Service as Consultant
Ted Kennedy	04/13/20	\$0.120	300,000	Per Co-Development Participation Agreement
Pok Chang	04/13/20	\$0.120	450,000	Per Co-Development Participation Agreement
Young Chang	04/13/20	\$0.120	450,000	Per Co-Development Participation Agreement
Johnny Karmo	05/07/20	\$0.120	750,000	Per Co-Development Participation Agreement
Jeffery Mendelson	06/01/20	\$0.110	825,000	Per Co-Development Participation Agreement
Sarah B Kornblum Living Trust	06/03/20	\$0.110	675,000	Per Co-Development Participation Agreement
David Richmond	07/08/20	\$0.120	300,000	Per Co-Development Participation Agreement
Veyo Partners LLC	08/17/20	\$0.120	150,000	Service as Consultant

Norman Yaldeo	08/24/20	\$0.120	375,000	Per Co-Development Participation Agreement
Chitayat-Mahboubian Family Trust	09/14/20	\$0.120	450,000	Per Co-Development Participation Agreement
Emanuel Mansour	09/15/20	\$0.120	150,000	Per Co-Development Participation Agreement
John Mansour	09/15/20	\$0.120	150,000	Per Co-Development Participation Agreement
Veyo Partners LLC	09/18/20	\$0.120	150,000	Service as Consultant
Veyo Partners LLC	09/18/20	\$0.120	150,000	Service as Consultant
Perry Johnson	09/25/20	\$0.120	450,000	Per Co-Development Participation Agreement
John Payne	09/30/20	\$0.120	10,000,000	Service on Board of Directors
Nola Masterson	09/30/20	\$0.120	500,000	Service on Board of Directors
Robert Rondeau	09/30/20	\$0.120	500,000	Service on Board of Directors
Chris Maggiore	09/30/20	\$0.120	500,000	Service on Board of Directors
HEP Investments	10/04/20	\$0.120	300,000	Per Co-Development Participation Agreement
Sea Green	10/04/20	\$0.120	750,000	Per Co-Development Participation Agreement
Mark Strome	10/08/20	\$0.120	1,500,000	Per Co-Development Participation Agreement
J Abreu Investments LLC	10/09/20	\$0.120	150,000	Per Co-Development Participation Agreement
Julian Leese	11/24/20	\$0.100	3,000,000	Service as Consultant

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.

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.

(b) No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

EXHIBIT INDEX

Exhibit Number	Title	
1.1	Underwriting Agreement	*
3.1	Articles of Incorporation of Health Enhancement Products, Inc., as amended	(1)
3.1.1	Amendment to Articles of Incorporation of the Company, dated July 24, 2012	(2)
3.1.2	Amended Articles of Incorporation dated October 16, 2014 for name change	(3)
3.1.3	Certificate to Amendment of Articles of Incorporation dated November 14, 2016	(4)
3.1.4	Certificate to Amendment dated May 2, 2019	(5)
3.2	Amended and restated By-laws of the Company	(6)
4.1	Form of Representative's Warrant	*
4.2	Form of Common Stock Purchase Warrant	*
4.3	Form of Warrant Agency Agreement	*
5.1	Opinion of Fennemore Craig, P.C.	**
10.1	Security Agreement with HEP Investments, LLC (\$100K loan) dated September 8, 2011	(7)
10.2	Senior Secured Note with HEP Investments, LLC (\$100K loan) dated September 8, 2011	(8)
10.3	Loan Agreement with HEP Investments, LLC (\$2M loan) dated December 2, 2011	(9)
10.4	Senior Secured Note with HEP Investments, LLC (\$2M loan) dated December 2, 2011	(10)
10.5	Security Agreement with HEP Investments, LLC (\$2M loan) dated December 2, 2011	(11)
10.6	IP Security Agreement with HEP Investments, LLC (\$2M loan) dated December 2, 2011	(12)
10.7	Amended and Restated Senior Secured Convertible Promissory Note and the First Amendment to Loan Agreement with HEP Investments, LLC dated April 15, 2013	(13)
10.8	Second Amendment to Loan Agreement with HEP Investments, LLC dated December 16, 2013	(14)
10.9	Third Amendment to Loan Agreement with HEP Investments, LLC dated March 17, 2014	(15)
10.10	Third Amendment to Loan Agreement with HEP Investments, LLC dated July 1, 2014	(16)
10.11	Fourth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated July 1, 2014	(17)
10.12	Fourth Amendment to Loan Agreement with HEP Investments, LLC dated December 1, 2014	(18)
10.13	Fifth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated December 1, 2014	(19)
10.14	Fifth Amendment to Loan Agreement with HEP Investments, LLC dated April 28, 2015	(20)
10.15	Sixth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated April 28, 2015	(21)
10.16	Sixth Amendment to Loan Agreement with HEP Investments, LLC dated December 31, 2015	(22)
10.17	Seventh Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated December 31, 2015	(23)
10.18+	Amended and Restated Employment Agreement with Andrew Dahl, the Registrant's CEO	(24)
10.19	Seventh Amendment to Loan Agreement with HEP Investments, LLC dated September 30, 2016	(25)
10.20	Eighth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated September 30, 2016	(26)
10.21	Eighth Amendment to Loan Agreement with HEP Investments, LLC dated March 1, 2017	(27)
10.22	Ninth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated March 1, 2017	(28)
10.23+	Amended and Restated Change of Control Agreement dated April 21, 2017	(29)

<u>10.24</u>	Limited License Agreement with NutriQuest dated April 20, 2017	(30)
<u>10.25</u>	Amended and Restated Registration Rights Agreement with HEP Investments, LLC (Lender) and Strome Mezzanine Fund LP dated October 18, 2017	(31)
<u>10.26</u>	Ninth Amendment to Loan Agreement with HEP Investments, LLC dated January 31, 2018	(32)
<u>10.27</u>	Tenth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated January 31, 2018	(33)
<u>10.28</u>	Tenth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated May 16, 2018	(34)
<u>10.29</u>	Eleventh Amendment to Loan Agreement with HEP Investments, LLC dated May 16, 2018	(35)
<u>10.30+</u>	Form of Amended and Restated Change of Control Agreement dated December 31, 2018	(36)
<u>10.31</u>	Debt Extension Agreement with HEP Investments, LLC dated March 29, 2019	(37)
<u>10.32</u>	Debt Conversion Agreement with HEP Investments, LLC dated April 5, 2019	(38)
<u>10.33+</u>	Amended and Restated Employment Agreement with Andrew Dahl, dated as of November 15, 2019	(39)
<u>10.34+</u>	2019 Omnibus Long-Term Incentive Plan	(40)
<u>10.35+</u>	Philip M. Rice Employment Letter, dated as of March 4, 2020	(41)
<u>10.36+</u>	Stock Option Grant Notice for 2019 Omnibus Long-Term Incentive Plan - A. Dahl	(42)
<u>10.37+</u>	Stock Option Grant Notice for 2019 Omnibus Long-Term Incentive Plan	(43)
<u>10.38</u>	Supply Chain Agreement with Aegle Partners 2 LLC, dated February 27, 2019	*
<u>10.39</u>	First Amendment to Supply Chain Agreement with Aegle Partners 2 LLC, dated September 14, 2019	*
<u>10.40</u>	Second Amendment to Supply Chain Agreement with Aegle Partners 2 LLC, dated November 24, 2020	*
<u>10.41</u>	Amended & Restated Participation Agreement with Strome Mezzanine Fund LP, Strome Alpha Fund LP and HEP Investments, LLC, dated June 6, 2018	*
<u>21.1</u>	Subsidiaries of the Registrant	*
<u>23.1</u>	Consent of Wolinetz, Lafazan & Company, P.C.	*
23.2	Consent of Fennemore Craig, P.C. (included in 5.1)	**
24.1	Power of attorney (included on signature page to this Registration Statement)	
101.INS	XBRL Instance Document	(44)
101.SCH	XBRL Taxonomy Extension Schema Document	(45)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	(46)
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	(47)
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	(48)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	(49)
*	Filed herewith.	
**	To be filed by amendment.	
+	Indicates management contract or compensatory plan.	

- (1) Filed as Exhibit 3.13 to Form 8K filed with the Commission on June 29, 2015 and incorporated herein by this reference.
- (2) Filed as Exhibit 3.11 to Form 10Q filed with the Commission on March 25, 2013 and incorporated by this reference.
- (3) Filed as Exhibit 3.12 to Form 10Q filed with the Commission on November 14, 2014 and incorporated by this reference.
- (4) Filed as Exhibit 3.1 to Form 8K filed with the Commission on November 16, 2016 and incorporated by this reference.
- (5) Filed as Exhibit 3.1 to Form 8K filed with the Commission on May 7, 2019 and incorporated by this reference.
- (6) Filed as Exhibit 3.2 to Form 10Q filed with the Commission on May 17, 2010 and incorporated by this reference.
- (7) Filed as Exhibit 10.04 to Form 10K filed with the Commission on March 30, 2012 and incorporated by this reference.
- (8) Filed as Exhibit 10.05 to Form 10K filed with the Commission on March 30, 2012 and incorporated by this reference.
- (9) Filed as Exhibit 10.06 to Form 10K filed with the Commission on March 30, 2012 and incorporated by this reference.
- (10) Filed as Exhibit 10.07 to Form 10K filed with the Commission on March 30, 2012 and incorporated by this reference.
- (11) Filed as Exhibit 10.08 to Form 10K filed with the Commission on March 30, 2012 and incorporated by this reference.
- (12) Filed as Exhibit 10.09 to Form 10K filed with the Commission on March 30, 2012 and incorporated by this reference.
- (13) Filed as Exhibit 10.24 to Form 10Q filed with the Commission on May 6, 2013 and incorporated by this reference.
- (14) Filed as Exhibit 10.26 to Form 10K filed with the Commission on March 31, 2014 and incorporated by this reference.
- (15) Filed as Exhibit 10.27 to Form 10K filed with the Commission on March 31, 2014 and incorporated by this reference.
- (16) Filed as Exhibit 10.28 to Form 10Q filed with the Commission on August 14, 2014 and incorporated by this reference.
- (17) Filed as Exhibit 10.29 to Form 10Q filed with the Commission on August 14, 2014 and incorporated by this reference.
- (18) Filed as Exhibit 10.31 to Form 8K filed with the Commission on December 26, 2014 and incorporated by this reference.
- (19) Filed as Exhibit 10.32 to Form 8K filed with the Commission on December 26, 2014 and incorporated by this reference.
- (20) Filed as Exhibit 10.33 to Form 8K filed with the Commission on May 1, 2015 and incorporated by this reference.

- (21) Filed as Exhibit 10.34 to Form 8K filed with the Commission on May 1, 2015 and incorporated by this reference.
- (22) Filed as Exhibit 10.36 to Form 8K filed with the Commission on January 7, 2016 and incorporated by this reference.
- (23) Filed as Exhibit 10.37 to Form 8K filed with the Commission on January 7, 2016 and incorporated by this reference.
- (24) Filed as Exhibit 10.39 to Form 10Q filed with the Commission on August 12, 2016 and incorporated by this reference.
- (25) Filed as Exhibit 10.40 to Form 8K filed with the Commission on October 5, 2016 and incorporated by this reference.
- (26) Filed as Exhibit 10.41 to Form 8K filed with the Commission on October 5, 2016 and incorporated by this reference.
- (27) Filed as Exhibit 10.42 to Form 8K filed with the Commission on March 6, 2017 and incorporated by this reference.
- (28) Filed as Exhibit 10.43 to Form 8K filed with the Commission on March 6, 2017 and incorporated by this reference.
- (29) Filed as Exhibit 10.1 to Form 10Q filed with the Commission on May 12, 2017 and incorporated by this reference.
- (30) Filed as Exhibit 10.2 to Form 10Q filed with the Commission on May 12, 2017 and incorporated by this reference.
- (31) Filed as Exhibit 10.1 to Form 10Q filed with the Commission on October 19, 2017 and incorporated by this reference.
- (32) Filed as Exhibit 10.1 to Form 8K filed with the Commission on February 12, 2018 and incorporated by this reference.
- (33) Filed as Exhibit 10.2 to Form 8K filed with the Commission on February 12, 2018 and incorporated by this reference.
- (34) Filed as Exhibit 10.1 to Form 8K filed with the Commission on May 18, 2018 and incorporated by this reference.
- (35) Filed as Exhibit 10.2 to Form 8K filed with the Commission on May 18, 2018 and incorporated by this reference.
- (36) Filed as Exhibit 10.1 to Form 8K filed with the Commission on January 7, 2019 and incorporated by this reference.
- (37) Filed as Exhibit 10.1 to Form 8K filed with the Commission on April 8, 2019 and incorporated by this reference.
- (38) Filed as Exhibit 10.2 to Form 8K filed with the Commission on April 8, 2019 and incorporated by this reference.
- (39) Filed as Exhibit 10.33+ to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (40) Filed as Exhibit 10.34+ to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (41) Filed as Exhibit 10.35+ to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (42) Filed as Exhibit 10.36+ to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (43) Filed as Exhibit 10.37+ to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (44) Filed as Exhibit 101.INS to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (45) Filed as Exhibit 101.SCH to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (46) Filed as Exhibit 101.CAL to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (47) Filed as Exhibit 101.DEF to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (48) Filed as Exhibit 101.LAB to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.
- (49) Filed as Exhibit 101.PRE to Form 10K filed with the Commission on March 26, 2020 and incorporated by this reference.

Item 17. Undertakings.

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.

(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 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.

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.

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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Keego Harbor, State of Michigan, on December 9, 2020.

ZIVO BIOSCIENCE, INC.

By: /s/ Philip M. Rice II

Philip M. Rice II

Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned officers and directors of ZIVO Bioscience, Inc., a Nevada corporation, do hereby constitute and appoint each of Philip M. Rice II and Andrew A. Dahl as his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments, exhibits thereto and other documents in connection therewith) to this Registration Statement and any subsequent registration statement filed by the registrant pursuant to Rule 462(b) of the Securities Act of 1933, as amended, which relates to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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>/s/ Andrew Dahl</u> Andrew Dahl	President, Chief Executive Officer, and Director (Principal Executive Officer)	December 9, 2020
<u>/s/ Philip M. Rice II</u> Philip M. Rice II	Chief Financial Officer (Principal Accounting and Financial Officer)	December 9, 2020
<u>/s/ Christopher Maggiore</u> Christopher Maggiore	Director	December 9, 2020
<u>/s/ Nola Masterson</u> Nola Masterson	Director	December 9, 2020
<u>/s/ John Payne</u> John Payne	Director	December 9, 2020
<u>/s/ Robert Rondeau</u> Robert Rondeau	Director	December 9, 2020

[] UNITS
EACH UNIT CONSISTING OF
ONE SHARE OF COMMON STOCK
AND
ONE WARRANT TO PURCHASE ONE SHARE OF COMMON STOCK

ZIVO BIOSCIENCE, INC.

UNDERWRITING AGREEMENT

[], 2020

Maxim Group LLC
Investment Banking
405 Lexington Avenue, 2nd Fl.
New York, New York 10174

As Representative of the Several Underwriters, if any, named in Schedule I hereto

Ladies and Gentlemen:

The undersigned, ZIVO BIOSCIENCE, INC., a company incorporated under the laws of Nevada (collectively with its subsidiaries, including, without limitation, all entities disclosed or described in the Registration Statement as being subsidiaries of ZIVO BIOSCIENCE, INC., the “Company”), hereby confirms its agreement (this “Agreement”) with the several underwriters (such underwriters, including the Representative (as defined below), the “Underwriters” and each an “Underwriter”) named in Schedule I hereto for which MAXIM GROUP LLC (“Maxim”) is acting as representative to the several Underwriters (in such capacity, the “Representative” and if there are no Underwriters other than the Representative, references to multiple Underwriters shall be disregarded and the term Representative as used herein shall have the same meaning as Underwriter) on the terms and conditions set forth herein.

It is understood that the several Underwriters are to make a public offering of the Public Securities as soon as the Representative deems it advisable to do so. The Public Securities are to be initially offered to the public at the public offering price set forth in the Prospectus. The Representative may from time to time thereafter change the public offering price and other selling terms.

It is further understood that Maxim will act as the Representative for the Underwriters in the offering and sale of the Closing Securities and, if any, the Option Securities in accordance with this Agreement.

**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:

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

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

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

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

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

“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 that banks shall not be deemed to be authorized or obligated to be closed due to a “shelter in place,” “non-essential employee” or similar closure of physical branch locations at the direction of any governmental authority if such banks’ electronic funds transfer systems (including for wire transfers) are open for use by customers on such day.

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

“Closing Date” means the hour and the date on the Trading Day on which all conditions precedent to (i) the Underwriters’ obligations to pay the Closing Purchase Price and (ii) the Company’s obligations to deliver the Closing Securities, in each case, have been satisfied or waived, but in no event later than 10:00 a.m. (New York City time) on the second (2nd) Trading Day following the date hereof or at such earlier time as shall be agreed upon by the Representative and the Company.

“Closing Purchase Price” shall have the meaning ascribed to such term in Section 2.1(b), which aggregate purchase price shall be net of underwriting discounts and commissions.

“Closing Securities” shall have the meaning ascribed to such term in Section 2.1(a)(iii).

“Closing Shares” shall have the meaning ascribed to such term in Section 2.1(a)(ii).

“Closing Units” shall have the meaning ascribed to such term in Section 2.1(a)(i).

“Closing Warrants” shall have the meaning ascribed to such term in Section 2.1(a)(iii).

“CMA” shall have the meaning ascribed to such term in Section 3.1(ff)

“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.

“Company Auditor” means Wolinetz, Lafazan & Co., P.C., with offices located at 5 North Village Ave., 2nd Floor, Rockville Centre, New York 11570.

“Company Counsel” means Honigman LLP, with offices located at 2290 First National Building, 660 Woodward Avenue, Detroit, Michigan 48226.

“Company IT Systems” shall have the meaning ascribed to such term in Section 3.1(qq).

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

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

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

“Effective Date” means the date and time as of which the Registration Statement became effective in accordance with the rules and regulations under the Securities Act.

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

“Execution Date” shall mean the date on which the parties execute and enter into this Agreement.

“Exempt Issuance” means the issuance of (a) shares of Common Stock, restricted stock, restricted stock units or options to employees, officers, consultants, other service providers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, for services rendered to the Company, (b) 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 automatic price resets, stock splits, adjustments or combinations as set forth in such securities) or to extend the term of such securities and (c) securities issued pursuant to acquisitions or strategic transactions 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 4.21(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 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.

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

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

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

“FINRA” means the Financial Industry Regulatory Authority.

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

“General Disclosure Package” shall have the meaning ascribed to such term in Section 3.1(f).

“Gracin & Marlow, LLP” means Gracin & Marlow, LLP, counsel to the Underwriters, with offices located at The Chrysler Building, 405 Lexington Avenue, 26th Floor, New York, New York 10174.

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

“Indebtedness” means (a) any liabilities for borrowed money or amounts owed in excess of \$25,000 (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, 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 (c) the present value of any lease payments in excess of \$25,000 due under leases required to be capitalized in accordance with GAAP.

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

“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 that are delivered on the date hereof by each of the Company’s officers and directors, each holder of Common Stock and Common Stock Equivalents holding, on a fully-diluted basis, more than 3% of the Company’s issued and outstanding Common Stock, in the form of Exhibit A attached hereto.

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

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

“Offering” shall have the meaning ascribed to such term in Section 2.1(c).

“Option Closing Date” shall have the meaning ascribed to such term in Section 2.2(c).

“Option Closing Purchase Price” shall have the meaning ascribed to such term in Section 2.2(b), which aggregate purchase price shall be net of the underwriting discounts and commissions.

“Option Securities” shall have the meaning ascribed to such term in Section 2.2(a).

“Option Shares” shall have the meaning ascribed to such term in Section 2.2(a).

“Option Warrants” shall have the meaning ascribed to such term in Section 2.2(a).

“Over-Allotment Option” shall have the meaning ascribed to such term in Section 2.2(a).

“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.

“Preliminary Prospectus” shall have the meaning ascribed to such term in Section 3.1(f).

“Privacy and Data Security Laws” shall have the meaning ascribed to such term in Section 3.1(o).

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), whether commenced or threatened.

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

“Public Securities” means, collectively, the Closing Securities and, if any, the Option Securities.

“Registration Statement” shall have the meaning ascribed to such term in Section 3.1(f).

“Representative’s Securities” shall have the meaning ascribed to such term in Section 2.5.

“Representative’s Warrants” shall have the meaning ascribed to such term in Section 2.5.

“Representative’s Warrant Shares” shall have the meaning ascribed to such term in Section 2.5.

“Representative’s Warrant Agreement” shall have the meaning ascribed to such term in Section 2.5.

“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.

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

“Securities” means the Closing Securities, the Option Securities, the Warrant Shares and the Representative’s Securities.

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

“Share Purchase Price” shall have the meaning ascribed to such term in Section 2.1(b).

“Shares” means, collectively, the shares of Common Stock delivered to the Underwriters in accordance with Section 2.1(a)(ii) and Section 2.2(a).

“Special Intellectual Property Counsel” means Dykema Gossett PLLC with offices located at 39577 Woodward Avenue, Suite 300, Bloomfield Hills, MI 48304.

“Special Nevada Counsel” means Fennemore Craig, P.C. with offices located at 7800 Rancharrah Parkway, Reno, NV 89511.

“Subsidiary” means any subsidiary of the Company 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 Common Stock is listed or quoted for trading on the date in question: the OTCQB Venture Market, 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 and all exhibits and schedules hereto, the Warrants, the Warrant Agent Agreement, the Representative’s Warrant Agreement, the Lock-Up Agreements, and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“Transfer Agent” means Issuer Direct Corporation, with a mailing address of 500 Perimeter Park Drive, Morrisville, North Carolina 27560, and any successor transfer agent of the Company.

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

“Underwriters’ Information” shall have the meaning ascribed to such term in Section 6.1.

“Units” shall have the meaning ascribed to such term in Section 2.1(a)(i).

“Warrant Agent” means the Transfer Agent.

“Warrant Agent Agreement” means the warrant agent agreement by and between the Company and Direct Transfer, LLC, as warrant agent, dated on or before the Closing Date, for the purpose of administering the Warrants, in the form of Exhibit G attached hereto.

“Warrant Purchase Price” shall have the meaning ascribed to such term in Section 2.1(b).

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

“Warrants” means, collectively, the Common Stock purchase warrants delivered to the Underwriters in accordance with Section 2.1(a)(ii) and Section 2.2, which Warrants shall be exercisable immediately and have a term of exercise equal to five (5) years, in the form of Exhibit E attached hereto.

ARTICLE II. PURCHASE AND SALE

2.1 Closing.

(a) Upon the terms and subject to the conditions set forth herein, the Company agrees to sell in the aggregate (i) [_____] units (the “Units”), with each Unit consisting of one share of Common Stock, and one Warrant to purchase one share of Common Stock, subject to the terms and conditions stated herein, and each Underwriter agrees to purchase, severally and not jointly, at the Closing, the following securities of the Company:

(i) the number of Units (the “Closing Units”) set forth opposite the name of such Underwriter on Schedule I hereof; and

(ii) the number of shares of Common Stock (the “Closing Shares”) set forth opposite the name of such Underwriter on Schedule I hereof included in the Closing Units; and

(iii) the number of Warrants (“Closing Warrants”) to purchase shares of Common Stock set forth opposite the name of such Underwriter on Schedule I hereof included in the Closing Units, which shall have an exercise price of \$[___] (subject to adjustment as provided therein) (collectively with the Closing Units and the Closing Shares, the “Closing Securities”).

The Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of Common Stock and the Warrants comprising the Units are immediately separable and will be issued separately in the Offering.

(b) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Closing Units set forth opposite their respective names on Schedule I attached hereto and made a part hereof at a purchase price of \$[] per Closing Unit (92% of the public offering price per Closing Unit)(the ‘Closing Purchase Price’), and the purchase price of each Closing Unit shall be allocated as follows: (i) \$[] per Closing Share (the ‘Share Purchase Price’) and (ii) \$0.0092 per Closing Warrant (the ‘Warrant Purchase Price’). The Closing Units are to be offered initially to the public at the price of \$[] per Unit (\$[] per share of Common Stock and \$0.01 per Warrant), which offering price is also set forth on the cover page of the Prospectus (as defined in Section 3.1(f) hereof).

(c) On the Closing Date, each Underwriter shall deliver or cause to be delivered to the Company, via wire transfer, immediately available funds equal to such Underwriter’s Closing Purchase Price and the Company shall deliver to, or as directed by, such Underwriter its respective Closing Securities and the Company shall deliver the other items required pursuant to Section 2.3 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.3 and 2.4, the Closing shall occur at the offices of Gracin & Marlow, LLP or such other location as the Company and Representative shall mutually agree. The Public Securities are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (the ‘Offering’).

2.2 Over-Allotment Option.

(a) For the purposes of covering any over-allotments in connection with the distribution and sale of the Closing Securities, the Representative is hereby granted an option (the ‘Over-Allotment Option’) to purchase up to [] shares of Common Stock, representing fifteen percent (15%) of the Closing Shares sold as part of the Closing Units sold in the Offering (the ‘Option Shares’), and/or Warrants to purchase up to [] shares of Common Stock, representing fifteen percent (15%) of the Closing Warrants sold as part of the Closing Units sold in the Offering (the ‘Option Warrants’ and, collectively with the Option Shares, the ‘Option Securities’), which may be purchased in any combination of Option Shares and/or Option Warrants at the Share Purchase Price and/or Warrant Purchase Price, respectively. The Closing Warrants and the Option Warrants, if any, shall be issued pursuant to, and shall have the rights and privileges set forth in the Warrant Agent Agreement.

(b) In connection with an exercise of the Over-Allotment Option, (a) the purchase price to be paid for any Option Shares is equal to the product of the Share Purchase Price multiplied by the number of Option Shares to be purchased and (b) the purchase price to be paid for any Option Warrants is equal to the product of the Warrant Purchase Price multiplied by the number of Option Warrants to be purchased (the aggregate purchase price to be paid on an Option Closing Date, the ‘Option Closing Purchase Price’).

(c) The Over-Allotment Option granted pursuant to this Section 2.2 may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Shares and/or Option Warrants in any combination thereof within 45 days after the Execution Date. An Underwriter will not be under any obligation to purchase any Option Securities prior to the exercise of the Over-Allotment Option by the Representative. The Over-Allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Shares and/or Option Warrants to be purchased and the date and time for delivery of and payment for the Option Securities (each, an ‘Option Closing Date’), which will not be later than the earlier of (i) 45 days after the Execution Date and (ii) two (2) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of Gracin & Marlow, LLP or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Securities does not occur on the Closing Date, each Option Closing Date will be as set forth in the notice. Upon exercise of the Over-Allotment Option, the Company will become obligated to convey to the Underwriters, and, subject to the terms and conditions set forth herein, the Underwriters will become obligated to purchase, the number of Option Shares and/or Option Warrants specified in such notice. The Representative may cancel the Over-Allotment Option at any time prior to the expiration of the Over-Allotment Option by written notice to the Company.

2.3 Deliveries. The Company shall deliver or cause to be delivered to each Underwriter (if applicable) the following:

(a) At the Closing Date, the Closing Shares including in the Closing Units and, as to each Option Closing Date, if any, the applicable Option Shares, which shares shall be delivered via The Depository Trust Company Deposit or Withdrawal at Custodian system for the accounts of the several Underwriters;

(b) At the Closing Date, the Closing Warrants included in the Closing Units and, as to each Option Closing Date, if any, the applicable Option Warrants, which Warrants shall be delivered via The Depository Trust Company Deposit or Withdrawal at Custodian system for the accounts of the several Underwriters;

(c) At the Closing Date, the executed Representative's Warrant Agreement(s) shall be issued in the name or names and in such authorized denominations as the Representative may request;

(d) At the Closing Date and at each Option Closing Date, if any, the duly executed and delivered legal opinion and negative assurance letter of Company Counsel addressed to the Underwriters, dated as of the Closing Date and as to each Option Closing Date, if any, bring-down opinions and negative assurance letters from Company Counsel addressed to the Underwriters in form and substance satisfactory to counsel to the Underwriters;

(e) At the Closing Date and at each Option Closing Date, if any, the duly executed and delivered legal opinion and negative assurance letter of Special Nevada Counsel for the Company with respect to certain matters related to Nevada law, addressed to the Underwriters, dated as of the Closing Date and each Option Closing Date, if any, in form and substance satisfactory to counsel to the Underwriters;

(f) At the Closing Date and at each Option Closing Date, if any, the duly executed and delivered opinion and negative assurance letter of Special Intellectual Property Counsel for the Company, with respect to certain intellectual property matters, addressed to the Underwriters, dated as of the Closing Date and each Option Closing Date, if any, in form and substance satisfactory to counsel to the Underwriters;

(g) At the Closing Date and at each Option Closing Date, if any, the duly executed and delivered opinion and negative assurance letter of Special Regulatory Counsel for the Company, with respect to certain regulatory matters, addressed to the Underwriters, dated as of the Closing Date and each Option Closing Date, if any, in form and substance satisfactory to counsel to the Underwriters;

(h) Contemporaneously herewith, a cold comfort letter, addressed to the Underwriters and in form and substance satisfactory in all respects to the Representative from the Company Auditor dated, respectively, as of the date of this Agreement and a bring-down letter dated as of the Closing Date and each Option Closing Date, if any;

(i) On the Closing Date and on each Option Closing Date, if any, the duly executed and delivered Officer's Certificate, substantially in the form required by Exhibit B attached hereto;

(j) On the Closing Date and on each Option Closing Date, if any, the duly executed and delivered Secretary's Certificate, substantially in the form required by Exhibit C attached hereto;

(k) On the Closing Date and on each Option Closing Date, if any, a duly executed and delivered Chief Financial Officer's Certificate, substantially in the form required by Exhibit D attached hereto, addressed to the Underwriters; and

(l) Such other customary certificates or documents as the Underwriters and Underwriters' Counsel may have reasonably requested.

2.4 Closing Conditions. The respective obligations of each Underwriter hereunder in connection with the Closing and each Option Closing Date are subject to the following conditions being met:

(a) the accuracy in all material respects when made and on the date in question (other than representations and warranties of the Company already qualified by materiality, which shall be true and correct in all respects) of the representations and warranties of the Company contained herein (unless as of a specific date therein);

(b) all obligations, covenants and agreements of the Company required to be performed at or prior to the date in question shall have been performed;

(c) the delivery by the Company of the items set forth in Section 2.3 of this Agreement;

(d) the Registration Statement shall be effective on the date of this Agreement and at each of the Closing Date and each Option Closing Date, if any, no stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall have been instituted or shall be pending or contemplated by the Commission and any request on the part of the Commission for additional information shall have been complied with to the reasonable satisfaction of the Representative;

(e) by the Execution Date, if required by FINRA, the Underwriters shall have received a notice of no objections from FINRA as to the amount of compensation allowable or payable to and the terms and arrangements for acting as the Underwriters as described in the Registration Statement;

(f) the (i) shares of Common Stock, including the Closing Shares, the Option Shares, the Warrant Shares, and the shares of Common Stock issuable upon exercise of the Representative's Warrants, and (ii) Warrants have been approved for listing on the Nasdaq Capital Market;

(g) the Company has filed with the Commission a Form 8-A (Accession No. 001-[]) providing for the registration pursuant to Section 12(b) under the Exchange Act of the shares of Common Stock and the Warrants; and such Form 8-A has become effective under the Exchange Act. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the shares of Common Stock or the Warrants under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration; and

(h) prior to and on each of the Closing Date and each Option Closing Date, if any: (i) there shall have been no material adverse change or development involving a prospective material adverse change in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, the General Disclosure Package and Prospectus; (ii) no action suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any Affiliate of the Company before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding may materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement, the General Disclosure Package and Prospectus; (iii) no stop order applicable to the Company shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; (iv) the Company has not incurred any material liabilities or obligations, direct or contingent, nor has it entered into any material transactions not in the ordinary course of business, other than pursuant to this Agreement and the transactions referred to herein; (v) the Company has not paid or declared any dividends or other distributions of any kind on any class of its capital stock; (vi) the Company has not altered its method of accounting; and (vii) the Registration Statement, the General Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the rules and regulations thereunder and shall conform in all material respects to the requirements of the Securities Act and the rules and regulations thereunder, and neither the Registration Statement, the General Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall 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, in light of the circumstances under which they were made, not misleading.

If any of the conditions specified in this Section 2.4 shall not have been fulfilled when and as required by this Agreement, or if any of the certificates, opinions, written statements or letters furnished to the Representative or to Representative's counsel pursuant to this Section 2.4 shall not be reasonably satisfactory in form and substance to the Representative and to Representative's counsel, all obligations of the Underwriters hereunder may be cancelled by the Representative at, or at any time prior to, the consummation of the Closing. 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.

2.5 Representative's Warrants.

(i) Warrant Amount; Term. The Company hereby agrees to issue and sell to the Representative (and/or its designees) on the Closing Date for an aggregate purchase price of \$100.00, warrants (the "Representative's Warrants") for the purchase of an aggregate of [] shares of Common Stock (which is equal to an aggregate of 8.0% of the Closing Shares included in the Closing Units sold in the Offering, excluding Closing Warrants and any Option Shares and Option Warrants sold in the Over-Allotment Option, if any). The Representative's Warrants shall be issuable pursuant to the Representative's Warrant Agreement in the form attached hereto as Exhibit F (the "Representative's Warrant Agreement") and exercisable, in whole or in part, commencing on a date which is one hundred eighty (180) days after the Effective Date of the Registration Statement (the "Initial Exercise Date") and expiring on the five-year anniversary of the Effective Date at an initial exercise price per share of Common Stock of \$[], which is equal to 110% of the public offering price of each Unit. The Representative's Warrant Agreement and the shares of Common Stock issuable upon exercise of the Representative's Warrant Agreement (the "Representative's Warrant Shares") are sometimes hereinafter referred to together as the "Representative's Securities." The Representative understands and agrees that there are significant restrictions pursuant to FINRA Rule 5110 against transferring the Representative's Warrant and the Representative's Warrant Shares during the one hundred eighty (180) days after the Effective Date and by its acceptance thereof each shall agree that it will not sell, transfer, assign, pledge or hypothecate the Representative's Warrant Agreement, or any portion thereof, the Representative's Warrant Shares, or any portion thereof, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities for a period of one hundred eighty (180) days following the Effective Date to anyone other than (i) an Underwriter or a selected dealer in connection with the Offering, or (ii) a bona fide officer or partner of the Representative or of any such Underwriter or selected dealer; and only if any such transferee agrees to the foregoing lock-up restrictions. In addition, the Representative's Warrants provide for certain demand and piggyback registration rights as more fully described in the Representative's Warrant Agreement.

(ii) Delivery. Delivery of the Representative's Warrant Agreement shall be made on the Closing Date and shall be issued in the name or names and in such authorized denominations as the Representative may request.

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 or otherwise made herein to the extent of the disclosure contained in the corresponding Section of the Disclosure Schedules, the Company represents and warrants to the Underwriters as of the Execution Date, as of the Closing Date and as of each Option Closing Date, if any, as follows:

(a) Subsidiaries. All of the Subsidiaries of the Company are set forth on Schedule 3.1(a). The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, 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 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, could 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, prospects 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 the Company 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, 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 could 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 filing with the Commission of the Prospectus, (ii) such filings as are required to be made under applicable state securities laws and (iii) application(s) to each applicable Trading Market for the listing of the Shares and Warrants for trading thereon in the time and manner required thereby (collectively, the "Required Approvals").

(f) Registration Statement. The Company has filed with the Commission the Registration Statement, including any related Preliminary Prospectus or Prospectuses, for the registration of the Securities under the Securities Act, which Registration Statement has been prepared by the Company in conformity with the requirements of the Securities Act and the rules and regulations of the Commission under the Securities Act. The registration of the Common Stock and the Warrants (which are included in the Units) under the Exchange Act has been declared effective by the Commission on the date hereof. Copies of such Registration Statement and of each amendment thereto, if any, including the related Preliminary Prospectuses, heretofore filed by the Company with the Commission have been delivered to the Underwriters. The term “Registration Statement” means such registration statement on Form S-1 (File No. 333-[____]), as amended, as of the relevant Effective Date, including financial statements, all exhibits and any information deemed to be included or incorporated by reference therein, including any information deemed to be included pursuant to Rule 430A or Rule 430B of the Securities Act and the rules and regulations thereunder, as applicable. If the Company files a registration statement to register a portion of the Securities and relies on Rule 462(b) of the Securities Act and the rules and regulations thereunder for such registration statement to become effective upon filing with the Commission (the “Rule 462 Registration Statement”), then any reference to the “Registration Statement” shall be deemed to include the Rule 462 Registration Statement, as amended from time to time. The term “Preliminary Prospectus” as used herein means a preliminary prospectus as contemplated by Rule 430 or Rule 430A of the Securities Act and the rules and regulations thereunder as included at any time as part of, or deemed to be part of or included in, the Registration Statement. The term “Prospectus” means the final prospectus in connection with this Offering as first filed with the Commission pursuant to Rule 424(b) of the Securities Act and the rules and regulations thereunder or, if no such filing is required, the form of final prospectus included in the Registration Statement at the Effective Date, except that if any revised prospectus or prospectus supplement shall be provided to the Representative by the Company for use in connection with the Securities which differs from the Prospectus (whether or not such revised prospectus or prospectus supplement is required to be filed by the Company pursuant to Rule 424(b)), the term “Prospectus” shall also refer to such revised prospectus or prospectus supplement, as the case may be, from and after the time it is first provided to the Representative for such use. Any reference herein to the terms “amend”, “amendment” or “supplement” with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include: (i) the filing of any document under the Exchange Act after the Effective Date, the date of such Preliminary Prospectus or the date of the Prospectus, as the case may be, which is incorporated therein by reference, and (ii) any such document so filed. All references in this Agreement to the Registration Statement, a Preliminary Prospectus and the Prospectus, or any amendments or supplements to any of the foregoing shall be deemed to include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“EDGAR”). The term “General Disclosure Package” means, collectively, the Permitted Free Writing Prospectus(es) (as defined below) issued at or prior to the date hereof, the most recent preliminary prospectus related to this Offering, and the information included on Schedule I and Schedule II hereto.

(g) Issuance of Securities. The Securities 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 nonassessable, free and clear of all Liens imposed by the Company. The Warrant Shares are duly authorized and, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Representative’s Warrant Shares are duly authorized and, when issued in accordance with the terms of the Representative’s Warrant Agreement, will be validly issued, fully paid and nonassessable, 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, the Warrants and the Representative’s Warrant Agreement. The Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. All corporate action required to be taken for the authorization, issuance and sale of the Securities has been duly and validly taken. The Securities will conform in all material respects to all statements with respect thereto contained in the Registration Statement, the General Disclosure Package and the Prospectus.

(h) Capitalization. The capitalization of the Company as of the date hereof is as set forth on Schedule 3.1(h). Except as set forth on Schedule 3.1(h), 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 stock options under the Company's stock option 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 other than the Representative 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 such rights which have been waived prior to the date hereof. Except as a result of the purchase and sale of the Securities or as set forth on Schedule 3.1(h), 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 the 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 or Common Stock Equivalents or the 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 Underwriters). 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 nonassessable, have been issued in compliance with all federal and state securities and other laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. All of the securities of the Company have been duly authorized and validly issued in accordance with all requisite laws. The authorized shares of the Company conform in all material respects to all statements relating thereto contained in the Registration Statement, the General Disclosure Package and the Prospectus. The offers and sales of the Company's securities were at all relevant times either registered under the Securities Act and the applicable state securities or Blue Sky laws or, based in part on the representations and warranties of the purchasers, exempt from such registration requirements. 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.

(i) 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 two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with 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 Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus and 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 accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“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. The agreements and documents described in the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus, and the SEC Reports conform in all material aspects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the rules and regulations thereunder to be described in the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus or the SEC Reports or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the General Disclosure Package, the Prospectus or the SEC Reports, or (ii) is material to the Company’s business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company’s knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors’ rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefore may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company’s knowledge, any other party is in default thereunder and, to the Company’s knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the Company’s knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses, including, without limitation, those relating to environmental laws and regulations. There are no pro forma or as adjusted financial statements which are required to be included in the Registration Statement, the General Disclosure Package and the Prospectus in accordance with Regulation S-X which have not been included as so required. The pro forma and pro forma as adjusted financial information included in the Registration Statement, the General Disclosure Package and the Prospectus has been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Rules and Regulations and include all adjustments necessary to present fairly in accordance with GAAP the pro forma and as adjusted financial position of the respective entity or entities presented therein at the respective dates indicated and their cash flows and the results of operations for the respective periods specified. The assumptions used in preparing the pro forma and pro forma as adjusted financial information included in the Registration Statement, the General Disclosure Package and the Prospectus provide a reasonable basis for presenting the significant effects directly attributable to the transactions or events described therein. The related pro forma and pro forma as adjusted adjustments give appropriate effect to those assumptions; and the pro forma and pro forma as adjusted financial information reflect the proper application of those adjustments to the corresponding historical financial statement amounts.

(j) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the Registration Statement, except as specifically disclosed in the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus, (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 liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice 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 shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans and the issuance of Common Stock Equivalents as disclosed in the Registration Statement. 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, prospects, 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. Unless otherwise disclosed in the Registration Statement, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

(k) Litigation. There has not been, and to the knowledge of the Company there is not pending or contemplated, any 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") which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor, to the Company's knowledge, any director or officer thereof, is or has been 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. To the knowledge of the Company, there has not been, and 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.

(l) 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 could reasonably be expected to result in a Material Adverse Effect. None of the Company's or the 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 the Subsidiaries is a party to a collective bargaining agreement, and the Company and the 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 the Subsidiaries to any liability with respect to any of the foregoing matters that would reasonably be expected to have a Material Adverse Effect. The Company and the Subsidiaries are in compliance with all 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 could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company has not received any claim for royalties or other compensation from any Person, including any employee of the Company who made inventive contributions to the Company's technology or products that are pending or unsettled, and except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company does not and will not have any obligation to pay royalties or other compensation to any Person on account of inventive contributions.

(m) Compliance. Except as set forth on Schedule 3.1(m), 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 as could not have or reasonably be expected to result in a Material Adverse Effect.

(n) Environmental Laws. The Company and the 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.

(o) Privacy and Data Security Laws and Regulations. The Company and the Subsidiaries have (A) operated and currently operate their respective businesses in a manner compliant with all applicable foreign, federal, state and local laws and regulations, all contractual obligations and all Company policies (internal and posted) related to privacy and data security applicable to the Company's and the Subsidiaries' collection, use, handling, transfer, transmission, storage, disclosure and/or disposal of the data of their respective customers, employees and other third parties (the "Privacy and Data Security Laws"), and (B) implemented, monitored and have been and are in compliance with, applicable administrative, technical and physical safeguards and policies and procedures designed to ensure compliance with Privacy and Data Security Laws, except as would not be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect. Except as described in the Registration Statement, the General Disclosure Package or the Prospectus, there has been no loss or unauthorized access, use, modification or breach of security of customer, employee or third party data maintained by or on behalf of the Company and the Subsidiaries, and neither the Company nor any of the Subsidiaries has notified, nor has the current intention to notify, any customer, governmental entity or the media of any such event with regard to any material data breach.

(p) Title to Assets. Except as described in the Registration Statement, the General Disclosure Package or the Prospectus, 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.

(q) Intellectual Property. Except as set forth on Schedule 3.1(q), the Company and the Subsidiaries have, or have rights to use or own or possess, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights it believes are necessary or required for use in connection with their respective businesses as described in the Registration Statement, the General Disclosure Package or the Prospectus and which the failure to so have could have a Material Adverse Effect (collectively, the “Intellectual Property Rights”). To the knowledge of the Company, the Company is not now infringing, and upon further development or commercialization, will not infringe, any valid claim of any issued patents, copyrights or trademarks of others. The Company has not conducted a “freedom to operate” study. None of, and 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 two (2) years from the date of this Agreement, except where such action would not reasonably be expected to have a Material Adverse Effect. Other than as specifically described in the Registration Statement, the General Disclosure Package or the Prospectus, neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the Registration Statement, the General Disclosure Package, the Prospectus or the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Company’s products or planned products as described in the Registration Statement, the General Disclosure Package or the Prospectus violate or infringe upon the rights of any Person, except as could 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 the 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 could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(r) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as 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 without a significant increase in cost.

(s) Transactions With Affiliates and Employees. Except as set forth in the Registration Statement, General Disclosure Package or Prospectus, 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 and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

(t) Sarbanes-Oxley; Internal Accounting Controls. The Company's disclosure controls and procedures and internal controls are effective. The Company and the Subsidiaries are in material compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 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. 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 ensure 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 periodic report under the Exchange Act (such date, the "Evaluation Date"). The Company presented in its most recently filed periodic report 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. 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) of the Company and the Subsidiaries that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and the Subsidiaries.

(u) Certain Fees. Except as set forth in the Registration Statement, the General Disclosure Package and Prospectus, no brokerage or finder's fees or commissions are or will be payable by the Company, any Subsidiary or Affiliate of the Company 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. There are no other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by FINRA. Other than payments to the Underwriters for this Offering or as disclosed in the Registration Statement, the Company has not made and has no agreements, arrangements or understanding to make any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the 180-day period preceding the initial filing of the Registration Statement through the 90-day period after the Effective Date. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

(v) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Securities will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. 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.

(w) Registration Rights. No Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary, other than those rights that have been disclosed in the Registration Statement or have been waived or satisfied.

(x) Compliance with Exchange Act. (i) The Common Stock and the Warrants are registered pursuant to Section 12(b) of the Exchange Act and the Company has filed with the Commission a Form 8-A (Accession No. 001-[____]) providing for the registration of the Common Stock and Warrant pursuant to Section 12(b) under 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(x), 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. Except as set forth on Schedule 3.1(x), 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 of the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer. The (i) shares of Common Stock, including the Closing Shares, the Option Shares, the Warrant Shares, and the shares of Common Stock issuable upon exercise of the Representative's Warrants, and (ii) Warrants have been approved for listing on the Nasdaq Capital Market.

(ii) Compliance with Listing Requirements. The Common Stock and the Warrants and the Warrant Shares and Representative's Warrant Shares have been approved for listing on the Nasdaq Stock Market LLC, subject to official notice of issuance, and the Company has taken no action designed to, or likely to have the effect of, delisting the shares of Common Stock, the Warrants, the Warrant Shares or the Representative's Warrant Shares from the Nasdaq Stock Market LLC, nor has the Company received any notification that the Nasdaq Stock Market LLC is contemplating terminating such listing. The Company has taken all necessary actions to ensure that, it is in compliance with all applicable corporate governance requirements set forth in the rules of the Nasdaq Stock Market LLC that are in effect. Without limiting the generality of the foregoing: (i) all members of the Company's board of directors who are required to be "independent" (as that term is defined under applicable laws, rules and regulations), including, without limitation, all members of the audit committee of the Company's board of directors, meet the qualifications of independence as set forth under applicable laws, rules and regulations and (ii) the audit committee of the Company's board of directors has at least one member who is an "audit committee financial expert" (as that term is defined under applicable laws, rules and regulations).

(y) 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 similar charter documents) or the laws of its state of incorporation that is or could become applicable as a result of the Underwriters and the Company fulfilling their obligations or exercising their rights under the Transaction Documents.

(z) Disclosure; 10b-5. The Registration Statement (and any further documents to be filed with the Commission) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, if any, at the time it became effective, complied in all material respects with the Securities Act and the Exchange Act and the applicable rules and regulations under the Securities Act and did not and, as amended or supplemented, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Preliminary Prospectus and the Prospectus, each as of its respective date, comply in all material respects with the Securities Act and the Exchange Act and the applicable rules and regulations. The Prospectus, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; *provided, however*, that this representation and warranty shall not apply to the Underwriters' Information. As of its date and the date hereof, the General Disclosure Package did not and does not include any untrue statement of a material fact or omitted to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The SEC Reports, when they were filed with the Commission, conformed in all material respects to the requirements of the Securities Act and the Exchange Act, as applicable, and the applicable rules and regulations, and none of such documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to the SEC Reports incorporated by reference in the Prospectus), in light of the circumstances under which they were made not misleading; and any further documents so filed and incorporated by reference in the Prospectus, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and the applicable rules and regulations, as applicable, and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. There are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (x) have not been filed as required pursuant to the Securities Act or (y) will not be filed within the requisite time period. There are no contracts or other documents required to be described in the Preliminary Prospectus or Prospectus, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required and the agreements and documents described in the Registration Statement, the General Disclosure Package and the Prospectus conform to the descriptions thereof contained therein. The press releases disseminated by the Company during the twelve 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 statistical, industry-related and market-related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources which the Company reasonably and in good faith believes are reliable and accurate, and such data agree with the sources from which they are derived, and the Company has obtained the written consent to the use of such data from such sources, to the extent required.

(aa) No Integrated Offering. 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 shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

(bb) 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. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

(cc) Tax Status. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and the Subsidiaries each (i) has made or filed all United States 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 that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of 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. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. The term "taxes" mean all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges of any kind whatsoever, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements, and other documents required to be filed in respect to taxes.

(dd) 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. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the FCPA.

(ee) Accountants. To the knowledge and belief of the Company, the Company Auditor (i) is an independent 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 ending December 31, 2020.

(ff) Regulatory; Compliance with laws. (A) The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities, including, without limitation, those administered by the U.S. Food and Drug Administration (“FDA”) of the U.S. Department of Health and Human Services, the Federal Trade Commission (the “FTC”), the United States Department of Agriculture (the “USDA”), the Center for the Veterinary Medicine (“CMA”) of the FDA, The Association of American Feed Control Officials (the “AAFCO”) or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA, FTC, USDA, CMA, AAFCO or necessary to conduct their respective businesses as described in the Registration Statement, the General Disclosure Package or the Prospectus, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (each, a “Material Permit”), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit. The disclosures in the Registration Statement concerning the effects of federal, state, local and all foreign regulation on the Company’s business as currently contemplated are correct in all material respects. The Company has not failed to file with the applicable regulatory authorities (including the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) any filing, declaration, listing, registration, report or submission that is required to be so filed for the Company’s business operation as currently conducted. All such filings were in material compliance with applicable laws when filed and no deficiencies have been asserted in writing by any applicable regulatory authority (including, without limitation, the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) with respect to any such filings, declarations, listings, registrations, reports or submissions.

(B) The Company and the Subsidiaries: (A) are and at all times has been in substantial compliance with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, advertising, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, including but not limited to the U.S. Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), the U.S. Controlled Substances Act (21 U.S.C. § 801 et seq.), the Federal Trade Commission Act (15 U.S.C. § 41-58), the California Safe Drinking Water Toxic Enforcement Act of 1986 and the Dietary Supplement Health and Education Act of 1994 (21 U.S.C. § 321 et seq.) (“Applicable Laws”), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (B) has not received any warning letter, untitled letter or other correspondence or notice from any other governmental authority alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits, registrations and supplements or amendments thereto required by any such Applicable Laws (“Authorizations”); (C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (D) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received notice that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such governmental authority is considering such action; (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (G) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, “dear doctor” letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company’s knowledge, no third party has initiated, conducted or intends to initiate any such notice or action.

(C) All preclinical and clinical studies conducted by or on behalf of the Company that are material to the Company and its Subsidiaries, taken as a whole, are or have been adequately described in the Registration Statement, the General Disclosure Package and the Prospectus in all material respects. The clinical and preclinical studies conducted by or on behalf of the Company and its Subsidiaries that are described in the Registration Statement, the General Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the General Disclosure Package and the Prospectus were and, if still ongoing, are being conducted in material compliance with all laws and regulations applicable thereto in the jurisdictions in which they are being conducted. The descriptions in the Registration Statement, the General Disclosure Package and the Prospectus of the results of such studies are accurate and complete in all material respects and fairly present the data derived from such studies, and the Company has no knowledge of, or reason to believe that, any clinical study the aggregate results of which are inconsistent with or otherwise call into question the results of any clinical study conducted by or on behalf of the Company and its Subsidiaries that are described in the Registration Statement, the General Disclosure Package and the Prospectus or the results of which are referred to in the S Registration Statement, the General Disclosure Package and the Prospectus. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not received any written notices or statements from the FDA, the European Medicines Agency or any other governmental agency or authority requiring, requesting or suggesting termination, suspension or material modification for or of any clinical or preclinical studies that are described in the Registration Statement, the General Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the General Disclosure Package and the Prospectus. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not received any written notices or statements from any governmental agency, and otherwise has no knowledge of, or reason to believe that any license, approval, permit or authorization to conduct any clinical trial of any potential product of the Company has been, will be or may be suspended, revoked, modified or limited. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Company product or that its products have GRAS status, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA. The Company has not been informed by the FDA that the FDA will prohibit the marketing, sale, license or use in the United States of any product proposed to be developed, produced or marketed by the Company nor has the FDA expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company. For purposes of this Section. In addition, to the extent that the Company supplies its products as ingredients for the use in foods or nutraceuticals, it is required to comply, and has substantially complied, with current good manufacturing practice (cGMP) regulations for the preparation, packing and storage of dietary supplements and foods, as well as the provisions of the Food Safety Modernization Act of 2011, and pursuant thereto the Company has developed and implement a Hazard Analysis and Critical Control Point program.

(D) The Company is producing its algal biomass in compliance with standards set forth in the GRAS dossier and the Company's products have GRAS status for use as a plant based ingredient for human consumption and poultry in accordance with U.S. FDA GRAS dossier and the Company has no reason to believe that its products do not have GRAS status or will lose GRAS status.

(gg) Stock Option Plans. Each stock option granted by the Company under the Company's stock option plan was granted (i) in accordance with the terms of the Company's stock option 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 stock option granted under the Company's stock option 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 the Subsidiaries or their financial results or prospects.

(hh) 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.

(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 the Representative's request.

(jj) Bank Holding Company Act. Neither the Company nor any of the 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 the 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 the 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.

(kk) Money Laundering. The operations of the Company and the 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, suit 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.

(ll) D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires completed by each of the Company's directors and officers immediately prior to the Offering is true and correct in all respects and the Company has not become aware of any information which would cause the information disclosed in such questionnaires to become inaccurate and incorrect.

(mm) FINRA Affiliation. No officer, director or any beneficial owner of 5% or more of the Company's shares of Common Stock or Common Stock Equivalents has any direct or indirect affiliation or association with any FINRA member (as determined in accordance with the rules and regulations of FINRA) that is participating in the Offering. Except for securities purchased on the open market, no Company Affiliate is an owner of stock or other securities of any member of FINRA. No Company Affiliate has made a subordinated loan to any member of FINRA. No proceeds from the sale of the Securities (excluding underwriting compensation as disclosed in the Registration Statement and the Prospectus) will be paid to any FINRA member, any persons associated with a FINRA member or an affiliate of a FINRA member. Except as disclosed in the Prospectus, the Company has not issued any warrants or other securities or granted any options, directly or indirectly, to the Representative or any of the Underwriters named on Schedule I hereto within the 180-day period prior to the initial filing date of the Prospectus. Except as disclosed in the Registration Statement and except for securities issued to the Representative as disclosed in the Prospectus and securities sold by the Representative on behalf of the Company, no person to whom securities of the Company have been privately issued within the 180-day period prior to the initial filing date of the Prospectus is a FINRA member, is a person associated with a FINRA member or is an affiliate of a FINRA member. No FINRA member participating in the Offering has a conflict of interest with the Company. For this purpose, a "conflict of interest" exists when a FINRA member, the parent or affiliate of a FINRA member or any person associated with a FINRA member in the aggregate beneficially own 5% or more of the Company's outstanding subordinated debt or common equity, or 5% or more of the Company's preferred equity. "FINRA member participating in the Offering" includes any associated person of a FINRA member that is participating in the Offering, any member of such associated person's immediate family and any affiliate of a FINRA member that is participating in the Offering. "Any person associated with a FINRA member" means (1) a natural person who is registered or has applied for registration under the rules of FINRA and (2) a sole proprietor, partner, officer, director, or branch manager of a FINRA member, or other natural person occupying a similar status or performing similar functions, or a natural person engaged in the investment banking or securities business who is directly or indirectly controlling or controlled by a FINRA member. When used in this Section 3.1(mm) the term "affiliate of a FINRA member" or "affiliated with a FINRA member" means an entity that controls, is controlled by or is under common control with a FINRA member. The Company will advise the Representative and Gracin & Marlow, LLP if it learns that any officer, director or owner of 5% or more of the Company's outstanding shares of Common Stock or Common Stock Equivalents is or becomes an affiliate or associated person of a FINRA member firm.

(nn) Officers' Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to Gracin & Marlow, LLP on behalf of the Representative shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

(oo) Board of Directors. The Board of Directors is comprised of the persons set forth under the heading of the Prospectus captioned “Management and Board of Directors.” The qualifications of the persons serving as board members and the overall composition of the Board of Directors comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder applicable to the Company and the rules of the Trading Market. At least one member of the Board of Directors qualifies as a “financial expert” as such term is defined under the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder and the rules of the Trading Market. In addition, at least a majority of the persons serving on the Board of Directors qualify as “independent” as defined under the rules of the Trading Market.

(pp) ERISA. The Company is not a party to an “employee benefit plan,” as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), which: (i) is subject to any provision of ERISA and (ii) is or was at any time maintained, administered or contributed to by the Company or any of its ERISA Affiliates (as defined hereafter). These plans are referred to collectively herein as the “Employee Plans.” An “ERISA Affiliate” of any person or entity means any other person or entity which, together with that person or entity, could be treated as a single employer under Section 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended (the “Code”). Each Employee Plan has been maintained in material compliance with its terms and the requirements of applicable law. No Employee Plan is subject to Title IV of ERISA. The Registration Statement, Preliminary Prospectus and the Prospectus identify each employment, severance or other similar agreement, arrangement or policy and each material plan or arrangement required to be disclosed pursuant to the Rules and Regulations providing for insurance coverage (including any self-insured arrangements), workers’ compensation, disability benefits, severance benefits, supplemental unemployment benefits, vacation benefits or retirement benefits, or deferred compensation, profit-sharing, bonuses, stock options, stock appreciation rights or other forms of incentive compensation, or post-retirement insurance, compensation or benefits, which: (i) is not an Employee Plan; (ii) is entered into, maintained or contributed to, as the case may be, by the Company or any of its ERISA Affiliates; and (iii) covers any officer or director or former officer or director of the Company or any of its ERISA Affiliates. These agreements, arrangements, policies or plans are referred to collectively as “Benefit Arrangements.” Each Benefit Arrangement has been maintained in material compliance with its terms and with the requirements of applicable law. Except as disclosed in the Registration Statement, Preliminary Prospectus and the Prospectus, there is no liability in respect of post-retirement health and medical benefits for retired employees of the Company or any of its ERISA Affiliates, other than medical benefits required to be continued under applicable law. No “prohibited transaction” (as defined in either Section 406 of ERISA or Section 4975 of the Code) has occurred with respect to any Employee Plan; and each Employee Plan that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could cause the loss of such qualification.

(qq) IT Systems. Except as would not, individually or in the aggregate, have a Material Adverse Effect, the Company reasonably believes that (i) the Company and the Subsidiaries own or have a valid right to access and use all computer systems, networks, hardware, software, databases, websites, and equipment used to process, store, maintain and operate data, information, and functions used in connection with the business of the Company and the Subsidiaries (the “Company IT Systems”), (ii) the Company IT Systems are adequate for, and operate and perform as required in connection with, the operation of the business of the Company and the Subsidiaries as currently conducted and (iii) the Company and the Subsidiaries have implemented reasonable backup, security and disaster recovery technology consistent with applicable regulatory standards;

(rr) Reverse Stock Split. The Company has the requisite corporate power and authority, and has obtained all requisite approval or authorization of any stockholder, the Board of Directors or others, in order to effect the reverse stock split of the Company’s shares of Common Stock (the “Reverse Stock Split”) as described in the Registration Statement, General Disclosure Package and Prospectus. No further approval or authorization of any stockholder, the Board of Directors or others is required in order to effect the Reverse Stock Split. The Company has taken all action necessary to authorize and approve the reverse stock split of its common stock on the basis of one share for every [] shares of common stock and the reverse stock split became effective on [].

(ss) Ineligible Issuer Status. At the time of filing the Registration Statement and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined under Rule 405 under the Securities Act.

(tt) No Relationships with Customers and Suppliers. No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company or any of the Company’s affiliates, on the other hand, which is required to be described in the Registration Statement, the General Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(uu) Sanctions. None of the Company, its directors or officers or, to the knowledge of the Company, any agent, employee, affiliate or other person acting on behalf of the Company has engaged in any activities sanctionable under the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010, the Iran Sanctions Act of 1996, the National Defense Authorization Act for Fiscal Year 2012, the Iran Threat Reduction and Syria Human Rights Act of 2012 or any Executive Order relating to any of the foregoing (collectively, and as each may be amended from time to time, the “Iran Sanctions”); and the Company will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of engaging in any activities sanctionable under the Iran Sanctions.

ARTICLE IV. OTHER AGREEMENTS OF THE PARTIES

4.1 Amendments to Registration Statement. The Company has delivered, or will as promptly as practicable deliver, to the Underwriters complete conformed copies of the Registration Statement and of each consent and certificate of experts, as applicable, filed as a part thereof, and conformed copies of the Registration Statement (without exhibits), the Prospectus, as amended or supplemented, and the General Disclosure Package in such quantities and at such places as an Underwriter reasonably requests. Neither the Company nor any of its directors and officers has distributed and none of them will distribute, prior to the Closing Date, any offering material in connection with the offering and sale of the Securities other than the Prospectus, the General Disclosure Package and the Registration Statement. The Company shall not file any such amendment or supplement to which the Representative shall reasonably object in writing.

4.2 Federal Securities Laws.

(a) Compliance. During the time when a Prospectus is required to be delivered under the Securities Act, the Company will use its best efforts to comply with all requirements imposed upon it by the Securities Act and the rules and regulations thereunder and the Exchange Act and the rules and regulations thereunder, as from time to time in force, so far as necessary to permit the continuance of sales of or dealings in the Securities in accordance with the provisions hereof and the Prospectus. If at any time when a Prospectus relating to the Securities is required to be delivered under the Securities Act, any event shall have occurred as a result of which, in the opinion of counsel for the Company or counsel for the Representative, the Prospectus, as then amended or supplemented, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, or if it is necessary at any time to amend the Prospectus to comply with the Securities Act, the Company will notify the Underwriters promptly and prepare and file with the Commission, subject to Section 4.1 hereof, an appropriate amendment or supplement in accordance with Section 10 of the Securities Act.

(b) Exchange Act Registration. For a period of three years from the Execution Date, the Company will use its best efforts to maintain the registration of the Common Stock and the Warrants under the Exchange Act; provided, that such provision shall not prevent a sale, merger or similar transaction involving the Company. The Company will not deregister the Common Stock under the Exchange Act without the prior written consent of the Representative, which consent shall not be unreasonably withheld and provided that such provision shall not prevent a sale, merger or similar transaction involving the Company.

(c) Free Writing Prospectuses. The Company represents and agrees that it has not made and will not make any offer relating to the Securities that would constitute an issuer free writing prospectus, as defined in Rule 433 of the rules and regulations under the Securities Act, without the prior written consent of the Representative. Any such free writing prospectus consented to by the Representative is herein referred to as a “Permitted Free Writing Prospectus.” The Company represents that it will treat each Permitted Free Writing Prospectus as an “issuer free writing prospectus” as defined in the rules and regulations under the Securities Act, and has complied and will comply with the applicable requirements of Rule 433 of the Securities Act, including timely Commission filing where required, legending and record keeping.

4.3 Delivery to the Underwriters of Prospectuses. The Company will deliver to the Underwriters, without charge, from time to time during the period when the Prospectus is required to be delivered under the Securities Act or the Exchange Act such number of copies of each Prospectus as the Underwriters may reasonably request.

4.4 Effectiveness and Events Requiring Notice to the Underwriters. The Company will use its best efforts to cause the Registration Statement to remain effective with a current prospectus until the later of nine (9) months from the Execution Date and the date on which the Warrants are no longer outstanding, and will notify the Underwriters and holders of the Warrants immediately and confirm the notice in writing: (i) of the effectiveness of the Registration Statement and any amendment thereto; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) the electronic filing with the Commission of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 4.4 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement, the General Disclosure Package or the Prospectus untrue or that requires the making of any changes in the Registration Statement, the General Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company will make every reasonable effort to obtain promptly the lifting of such order.

4.5 Review of Financial Statements. For a period of three (3) years from the Execution Date, the Company shall file with the SEC all reports required to be filed pursuant to the Exchange Act and, at its expense, shall cause its regularly engaged independent registered public accounting firm to review (but not audit) the Company's financial statements included in such reports, provided that such provision shall not prevent a sale, merger or similar transaction involving the Company.

4.6 Reports to the Underwriters; Expenses of the Offering

(a) Periodic Reports, etc. For a period of three years from the Execution Date, the Company will furnish or make available to the Underwriters copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish or make available to the Underwriters: (i) a copy of each periodic report the Company shall be required to file with the Commission; (ii) a copy of every press release and every news item and article with respect to the Company or its affairs which was released by the Company; (iii) a copy of each Form 8-K prepared and filed by the Company; (iv) a copy of each registration statement filed by the Company under the Securities Act; (v) such additional documents and information with respect to the Company and the affairs of any future Subsidiaries of the Company as the Representative may from time to time reasonably request; provided that the Underwriters shall each sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative in connection with such Underwriter's receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Underwriters pursuant to this Section.

(b) Transfer Sheets. For a period of one (1) year from the Execution Date, the Company shall retain the Transfer Agent or a transfer and registrar agent acceptable to the Representative and will furnish to the Underwriters at the Company's sole cost and expense such transfer sheets of the Company's securities as an Underwriter may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and the DTC, provided, however, that such requests cannot be made more than once monthly; and provided that such provision shall not prevent a sale, merger or similar transaction involving the Company.

(c) Trading Reports. For a period of one (1) year after the date of this Agreement, the Company shall provide to the Underwriters, at the Company's expense, such reports published by the Trading Market relating to price and trading of such securities, as the Underwriters shall reasonably request; provided that such provision shall not prevent a sale, merger or similar transaction involving the Company.

(d) General Expenses Related to the Offering. The Company hereby agrees to pay on each of the Closing Date and each Option Closing Date, if any, to the extent not paid at the Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to: (a) all filing fees and communication expenses relating to the registration of the Securities to be sold in the Offering (including the Option Securities) with the Commission; (b) all FINRA Public Offering Filing System fees associated with the review of the Offering by FINRA; all fees and expenses relating to the listing of such Closing Units, Option Shares and Warrant Shares on the Trading Market and such other stock exchanges as the Company and the Representative together determine; (c) the costs of all mailing and printing of the underwriting documents (including, without limitation, the Underwriting Agreement, and any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, any agreements with Selected Dealers, Underwriters' Questionnaire and Power of Attorney), Registration Statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (d) the costs of preparing, printing and delivering the Securities; (e) fees and expenses of the Transfer Agent for the Securities (including, without limitation, any fees required for same-day processing of any instruction letter delivered by the Company); (f) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Underwriters; (g) the fees and expenses of the Company's accountants; (h) the fees and expenses of the Company's legal counsel and other agents and representatives; (i) the Underwriters' costs of mailing prospectuses to prospective investors; (j) all fees, expenses and disbursements relating to background checks of the Company's officers and directors; (k) the fees and expenses associated with the Underwriters' use of i-Deal's book-building, prospectus tracking and compliance software (or other similar software) for the Offering; (l) the fees and expenses of the Underwriter's legal counsel and (m) the Company's actual "road show" expenses for the Offering. The Underwriters may also deduct from the net proceeds of the Offering payable to the Company on the Closing Date, or each Option Closing Date, if any, all out-of-pocket fees, expenses and disbursements (including legal fees and expenses) of the Underwriters incurred as a result of providing services related to the Offering to be paid by the Company to the Underwriters; *provided, however*, that all such costs and expenses pursuant to clauses (j)(k) and (l) of this Section 4.6(d), which are incurred by the Underwriters and for which the Company shall be responsible shall not exceed \$125,000 in the aggregate in the event of a Closing of the Offering (\$25,000 of which has been paid as an advance (the "Advance") prior to the Execution Date) and a maximum of \$50,000 in the event there is not a Closing. In the event the offering is terminated, the Advance received against reasonable out-of-pocket expenses incurred in connection with the offering will be returned to the Company to the extent not actually incurred in accordance with FINRA Rule 5110(f)(2)(C).

4.7 Application of Net Proceeds. The Company will apply the net proceeds from the Offering received by it in a manner consistent with the application described under the caption "Use of Proceeds" in the Prospectus.

4.8 Delivery of Earnings Statements to Security Holders. The Company will timely file such reports pursuant to the Exchange Act as are necessary in order to make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth full calendar month following the Execution Date, an earnings statement (which need not be certified by independent public or independent certified public accountants unless required by the Securities Act or the rules and regulations under the Securities Act, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve consecutive months beginning after the Execution Date.

4.9 Stabilization. Neither the Company, nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or will take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities.

4.10 Internal Controls. The Company will maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (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 existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

4.11 Accountants. For a period of three (3) years from the Effective Date, the Company shall continue to retain a nationally recognized, independent PCAOB registered public accounting firm. The Underwriters acknowledge that the Company Auditor is acceptable to the Underwriters.

4.12 FINRA. The Company shall advise the Underwriters (who shall make an appropriate filing with FINRA) if it is aware that any officer, director, 5% or greater shareholder of the Company or Person that received the Company's unregistered equity securities in the past 180 days is or becomes an affiliate or associated person of a FINRA member firm prior to the earlier of the termination of this Agreement or the conclusion of the distribution of the Offering.

4.13 No Fiduciary Duties. The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual and commercial in nature, based on arms-length negotiations and that neither the Underwriters nor their affiliates or any selected dealer shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement. Notwithstanding anything in this Agreement to the contrary, the Company acknowledges that the Underwriters may have financial interests in the success of the Offering that are not limited to the difference between the price to the public and the purchase price paid to the Company by the Underwriters for the shares and the Underwriters have no obligation to disclose, or account to the Company for, any of such additional financial interests. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any breach or alleged breach of fiduciary duty by the Underwriters.

4.14 Warrant Shares. If all or any portion of a Warrant or a Representative's Warrants is exercised at a time when there is an effective registration statement to cover the issuance of the Warrant Shares or the Representative's Warrant Shares, as the case may be, or if the Warrant or Representative's Warrants is exercised via cashless exercise at a time when such Warrant Shares or Representative's Warrant Shares would be eligible for resale under Rule 144 by a non-affiliate of the Company, the Warrant Shares or the Representative's Warrant Shares issued pursuant to any such exercise shall be issued free of all restrictive legends. If at any time following the date hereof the Registration Statement (or any subsequent registration statement registering the sale or resale of the Warrant Shares or the Representative's Warrant Shares) is not effective or is not otherwise available for the sale of the Warrant Shares or the Representative's Warrant Shares, the Company shall immediately notify the holders that have provided it an address of the Warrants or the Representative's Warrant Agreement 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 Warrant Shares or the Representative's Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any holder thereof to sell, any of the Warrant Shares in compliance with applicable federal and state securities laws).

4.15 Board Composition and Board Designations. The qualifications of the persons serving as board members of the Company and the overall composition of the Board of Directors shall comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder and with the listing requirements of the Nasdaq Stock Market and, if applicable, at least one member of the Board of Directors must qualify as a "financial expert" as such term is defined under the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder.

4.16 Securities Laws Disclosure; Publicity. At the request of the Representative, by 9:00 a.m. (New York City time) on the date hereof, the Company shall issue a press release disclosing the material terms of the Offering. The Company and the Representative shall consult with each other in issuing any press releases with respect to the Offering, and neither the Company nor any Underwriter shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, 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. The Company will not issue press releases or engage in any other publicity, without the Representative's prior written consent, which consent will not be unreasonably withheld, for a period ending at 5:00 p.m. (New York City time) on the first business day following the 45th day following the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business.

4.17 Shareholder Rights Plan. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Underwriter of the Securities 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 Underwriter of Securities could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities.

4.18 Reservation of Common Stock. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times while any of the Warrants or Representative's Warrants are outstanding, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue Option Shares pursuant to the Over-Allotment Option, Warrant Shares pursuant to any exercise of the Warrants and Representative's Warrant Shares pursuant to any exercise of the Representative's Warrants.

4.19 Listing of Common Stock and Warrants. The Common Stock and the Warrants have been approved for trading on the Nasdaq Capital Market. The Company agrees to use its best efforts to effect and maintain the trading of the Common Stock and the Warrants on the Nasdaq Capital Market for at least three (3) years after the Closing Date; provided that such provision shall not prevent a sale, merger or similar transaction involving the Company.

4.20 Right of First Refusal. Upon the Closing of the Offering, for a period of twenty-four (24) months from such Closing, the Company grants each of Maxim and Joseph Gunnar & Co., LLC (“JG”) the right of first refusal (the “Right of First Refusal”) to act as lead managing underwriter and book-runner and/or placement agent or the co-lead manager and co-book runner and/or co-lead placement agent with at least 100% of the economics for any and all future public or private equity, equity-linked or debt (excluding commercial bank debt) offerings undertaken during such period by the Company, any Subsidiary, or any successor to the Company (each, a “Subject Transaction”), at each of Maxim’s and JG’s sole and exclusive discretion, on terms and conditions customary to each of Maxim and JG for such Subject Transactions. In the event that both Maxim and JG exercise their respective Right of First Refusal as to the same public equity offering, the economic participation between Maxim and JG for this Right of First Refusal on such future public equity offering shall be 50% to Maxim and 50% to JG. For the avoidance of any doubt, the Company shall not retain, engage or solicit any additional investment banker, book-runner, financial advisor, underwriter and/or placement agent in a Subject Transaction without the express written consent of Maxim and JG.

The Company shall notify Maxim and JG of its intention to pursue a Subject Transaction, including the material terms thereof, by providing written notice thereof by registered mail or overnight courier service addressed to Maxim. If Maxim fails to exercise its Right of First Refusal with respect to any Subject Transaction within ten (10) Business Days after the mailing of such written notice, then Maxim shall have no further claim or right with respect to the Subject Transaction. If JG fails to exercise its Right of First Refusal with respect to any Subject Transaction within ten (10) Business Days after the mailing of such written notice, then JG shall have no further claim or right with respect to the Subject Transaction. Each of Maxim and JG may elect, in its sole and absolute discretion, not to exercise its Right of First Refusal with respect to any Subject Transaction; provided that any such election by Maxim or JG shall not adversely affect its Right of First Refusal with respect to any other Subject Transaction during the twenty four (24) month period agreed to above.

4.21 Subsequent Equity Sales.

(a) From the date hereof until ninety (90) days after the Closing Date, neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents.

(b) Notwithstanding the foregoing, this Section 4.21 shall not apply in respect of an Exempt Issuance.

4.22 Capital Changes. Until ninety (90) days after the Closing Date and except for reverse stock splits as disclosed in the Registration Statement, the Company shall not undertake a reverse or forward stock split or reclassification of the Common Stock without the prior written consent of Maxim.

4.23 Research Independence. The Company acknowledges that each Underwriter’s research analysts and research departments, if any, are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriter’s research analysts may hold and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the Offering that differ from the views of its investment bankers. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against such Underwriter with respect to any conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriter’s investment banking divisions. The Company acknowledges that each Representative is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short position in debt or equity securities of the Company.

**ARTICLE V.
DEFAULT BY UNDERWRITERS**

If on the Closing Date or any Option Closing Date, if any, any Underwriter shall fail to purchase and pay for the portion of the Closing Securities or Option Securities, as the case may be, which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Company), the Representative, or if a Representative is the defaulting Underwriter, the non-defaulting Underwriters, shall use their reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Company such amounts as may be agreed upon and upon the terms set forth herein, the Closing Securities or Option Securities, as the case may be, which the defaulting Underwriter or Underwriters failed to purchase. If during such 36 hours the Representative shall not have procured such other Underwriters, or any others, to purchase the Closing Securities or Option Securities, as the case may be, agreed to be purchased by the defaulting Underwriter or Underwriters, then (a) if the aggregate number of Closing Securities or Option Securities, as the case may be, with respect to which such default shall occur does not exceed 10% of the Closing Securities or Option Securities, as the case may be, covered hereby, the other Underwriters shall be obligated, severally, in proportion to the respective numbers of Closing Securities or Option Securities, as the case may be, which they are obligated to purchase hereunder, to purchase the Closing Securities or Option Securities, as the case may be, which such defaulting Underwriter or Underwriters failed to purchase, or (b) if the aggregate number of Closing Securities or Option Securities, as the case may be, with respect to which such default shall occur exceeds 10% of the Closing Securities or Option Securities, as the case may be, covered hereby, the Company or the Representative will have the right to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Company except to the extent provided in Article VI hereof. In the event of a default by any Underwriter or Underwriters, as set forth in this Article V, the applicable Closing Date may be postponed for such period, not exceeding seven days, as the Representative, or if a Representative is the defaulting Underwriter, the non-defaulting Underwriters, may determine in order that the required changes in the Prospectus or in any other documents or arrangements may be effected. The term "Underwriter" includes any person substituted for a defaulting Underwriter. Any action taken under this Section shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

**ARTICLE VI.
INDEMNIFICATION**

6.1 Indemnification of the Underwriters. The Company shall indemnify and hold harmless each Underwriter, its affiliates, the directors, officers, employees and agents of such Underwriter and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act from and against any and all losses, claims, liabilities, expenses and damages (including any and all investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding between any of the indemnified parties and any indemnifying parties or between any indemnified party and any third party, or otherwise, or any claim asserted), to which they, or any of them, may become subject under the Securities Act, the Exchange Act or other federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, liabilities, expenses or damages arise out of or are based on (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including the information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Securities Act and the rules and regulations thereunder, as applicable, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus, any preliminary prospectus supplement, any Permitted Free Writing Prospectus or the Prospectus (or any amendment or supplement to any of the foregoing) or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading or (iii) any untrue statement or alleged untrue statement of a material fact contained in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering of the Securities, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically) (collectively, "Marketing Materials") or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading or (iv) in whole or in part any inaccuracy in any material respect in the representations and warranties of the Company contained herein; *provided, however*, that the Company shall not be liable to the extent that such loss, claim, liability, expense or damage is based on any untrue statement or omission or alleged untrue statement or omission made in reliance on and in conformity with Underwriters' Information. This indemnity agreement will be in addition to any liability that the Company might otherwise have. For all purposes of this Agreement, the information set forth in the Prospectus in the "Discretionary Accounts," "Price Stabilization, Short Positions and Penalty Bids" and "Electronic Distribution" sections under the caption "Underwriting" constitutes the only information (the "Underwriters' Information") relating to the Underwriters furnished in writing to the Company by the Underwriters through the Representative specifically for inclusion in the preliminary prospectus, the Registration Statement or the Prospectus.

6.2 Indemnification of the Company. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its affiliates, the directors, officers, employees and agents of the Company and each other person or entity, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any losses, liabilities, claims, damages and expenses whatsoever, as incurred (including but not limited to reasonable attorneys' fees and any and all reasonable expenses whatsoever, incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or otherwise, insofar as such losses, liabilities, claims, damages or expenses (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Securities Act and the rules and regulations thereunder, any Preliminary Prospectus, the Prospectus, or any amendment or supplement to any of them, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that any such loss, liability, claim, damage or expense (or action in respect thereof) arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made therein in reliance upon the Underwriters' Information; provided, however, that in no case shall any Underwriter be liable or responsible for any amount in excess of the underwriting discount and commissions applicable to the Securities purchased by such Underwriter hereunder.

6.3 Indemnification Procedures. Any party that proposes to assert the right to be indemnified under this Section 6 shall, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 6, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party under the foregoing provisions of this Section 6 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable out-of-pocket costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (i) the employment of counsel by the indemnified party has been authorized in writing by one of the indemnifying parties in connection with the defense of such action, (ii) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (iii) the indemnified party has reasonably concluded that a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party shall not have the right to direct the defense of such action on behalf of the indemnified party), (iv) the indemnifying party does not diligently defend the action after assumption of the defense, or (v) the indemnifying party has not in fact employed counsel satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel shall be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges shall be reimbursed by the indemnifying party promptly as they are incurred. An indemnifying party shall not be liable for any settlement of any action or claim effected without its written consent (which consent will not be unreasonably withheld or delayed). No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 6 (whether or not any indemnified party is a party thereto), unless (x) such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising or that may arise out of such claim, action or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party, and (y) the indemnifying party confirms in writing its indemnification obligations hereunder with respect to such settlement, compromise or judgment. Notwithstanding the foregoing, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 6(a) effected without its written consent if (A) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (B) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

6.4 Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 6 is applicable in accordance with its terms but for any reason is held to be unavailable, the Company and the Underwriters shall contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than the Underwriters, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who may also be liable for contribution), to which the Company and the Underwriter may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the Offering of the Securities pursuant to this Agreement. The relative benefits received by the Company and the Underwriters shall be deemed to be in the same proportion as (x) the total proceeds from the Offering (net of underwriting discount and commissions but before deducting expenses) received by the Company bears to (y) the underwriting discount and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions which resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 6.4 were to be determined by pro rata allocation or by any other method of allocation (even if the Underwriters were treated as one entity for such purpose) which does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense or damage, or action in respect thereof, referred to above in this Section 6.4 shall be deemed to include, for purpose of this Section 6.4, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 6.4, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by it. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 6.4, any person who controls a party to this Agreement within the meaning of the Securities Act will have the same rights to contribution as that party, and each officer of the Company who signed the Registration Statement will have the same rights to contribution as the Company, and each director, officer, employee, counsel or agent of an Underwriter will have the same rights to contribution as such Underwriter, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 6.4, will notify any such party or parties from whom contribution may be sought, but the omission so to notify will not relieve the party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 6.4. The obligations of the Underwriters to contribute pursuant to this Section 6.4 are several in proportion to the respective number of Securities to be purchased by each of the Underwriters hereunder and not joint. No party will be liable for contribution with respect to any action or claim settled without its written consent (which consent will not be unreasonably withheld).

6.5 Survival. The indemnity and contribution agreements contained in this Section 6 and the representations and warranties of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or any controlling Person thereof, (ii) acceptance of any of the Securities and payment therefor or (iii) any termination of this Agreement.

**ARTICLE VII.
MISCELLANEOUS**

7.1 Termination.

(a) Termination Right. The Representative shall have the right to terminate this Agreement by notifying the Company at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in their opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on any Trading Market shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction, or (iii) if the United States shall have become involved in a new war or an increase in major hostilities, or (iv) if a banking moratorium has been declared by a New York State or federal authority, or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets, or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in the Representative's opinion, make it inadvisable to proceed with the delivery of the Securities, or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder, or (viii) if the Representative shall have become aware after the date hereof of such a material adverse change in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative's judgment would make it impracticable to proceed with the Offering, sale and/or delivery of the Securities or to enforce contracts made by the Underwriters for the sale of the Securities.

(b) Expenses. In the event this Agreement shall be terminated pursuant to Section 7.1(a), within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to Maxim its actual and accountable out of pocket expenses related to the transactions contemplated herein then due and payable up to \$50,000 (which \$25,000 has been paid as an Advance prior to the Execution Date) (provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement). Notwithstanding the foregoing, any Advance received by the Representative will be reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(f)(2)(C).

(c) Indemnification. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Article VI shall not be in any way effected by such election or termination or failure to carry out the terms of this Agreement or any part hereof.

7.2 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, any 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. Notwithstanding anything herein to the contrary, the Engagement Agreement, dated September 8, 2020 ("Engagement Agreement"), by and between the Company and Maxim, shall continue to be effective and the terms therein, including, without limitation, Section 15 with respect to any future offerings, shall continue to survive and be enforceable by Maxim in accordance with its terms, provided that, in the event of a conflict between the terms of the Engagement Agreement and this Agreement, the terms of this Agreement shall prevail.

7.3 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 delivered via facsimile at the facsimile number (if any) or e-mail attachment at the email address 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 date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or e-mail attachment at the e-mail 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.

7.4 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 Maxim. 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, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right.

7.5 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.

7.6 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns.

7.7 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, shareholders, 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 action, suit or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, 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 suit, 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 Article VI, the prevailing party in such action, suit 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.

7.8 Survival. The representations and warranties contained herein shall survive the Closing and the Option Closing, if any, and the delivery of the Securities.

7.9 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 were an original thereof.

7.10 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.

7.11 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Underwriters 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.

7.12 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.

7.13 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.

7.14 WAIVER OF JURY TRIAL. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVE FOREVER ANY RIGHT TO TRIAL BY JURY.

7.15 No Third Party Beneficiaries. The provisions of this Agreement shall be binding upon and shall inure solely to the benefit of the parties hereto, are not intended to confer upon any Person other than the parties hereto, JG solely for the purposes of Section 4.20 of this Agreement and the Underwriters where so indicated any rights, benefits, remedies, obligations or liabilities hereunder.

(Signature Pages Follow)

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement among the Company and the several Underwriters in accordance with its terms.

Very truly yours,

ZIVO BIOSCIENCE, INC.

By: _____
Name:
Title:

Address for Notice:

2804 Orchard Lake Rd., Suite 202
Keego Harbor, Michigan 48320
E-mail: [_____]
Attention: [_____]

Copy to:

Honigman LLP
2290 First National Building
660 Woodward Avenue
Detroit, Michigan 48226
Facsimile: ([____]) [____]- or e-mail: dkunz@honigman.com
Attention: Donald J. Kunz, Esq.

Accepted by the Representative, acting for themselves and as Representative of the Underwriters named on Schedule I hereto, as of the date first above written:

MAXIM GROUP LLC

By: _____
Name: Clifford A. Teller
Title: Executive Managing Director,
Investment Banking

Address for Notice:

405 Lexington Avenue
New York, New York 10174
Facsimile: (212) 895-3783 or e-mail: [_____]
Attention: Clifford A. Teller

Copy to:

Gracin & Marlow, LLP
The Chrysler Building
405 Lexington Avenue, 26th Floor
New York, New York 10174
Facsimile: (212) 208-4657 or e-mail: [_____]
Attention: Leslie Marlow, Esq.

SCHEDULE I

SCHEDULE OF UNDERWRITERS

<u>Underwriters</u>	<u>Closing Units</u>	<u>Closing Shares</u>	<u>Closing Warrants</u>	<u>Closing Purchase Price</u>
Maxim Group LLC	[]	[]	[]	\$ []
Joseph Gunnar & Co. LLC	[]	[]	[]	\$ []
Total	[]	[]	[]	\$ []

SCHEDULE II

Pricing Information

Number of Closing Units: [_____]

Number of Closing Shares: [_____]

Number of Closing Warrants: [_____]

Number of Option Shares: [_____]

Number of Option Warrants: [_____]

Public Offering Price per Closing Unit: \$[_____]

Public Offering Price per Option Share: \$[_____]

Public Offering Price per Option Warrant: \$[_____]

Underwriting Discount per Closing Unit: \$[_____]

Underwriting Discount per Option Share: \$[_____]

Underwriting Discount per Option Warrant: \$[_____]

Proceeds to Company per Closing Unit (before expenses): \$[_____]

Proceeds to Company per Option Share (before expenses): \$[_____]

Proceeds to Company per Option Warrant (before expenses): \$0.0092

EXHIBIT A

FORM OF LOCK-UP AGREEMENT

[_____], 2020

Maxim Group LLC
405 Lexington Avenue
New York, New York 10174

Re: Zivo Bioscience, Inc.—Public Offering

Ladies and Gentlemen:

The undersigned, a holder of common stock, par value \$0.001 per share (the “**Common Stock**”), or rights to acquire Shares, of Zivo Bioscience, Inc. (the “**Company**”), understands that you are the representative (the “**Representative**”) of the several underwriters (collectively, the “**Underwriters**”) named or to be named in the final form of **Schedule I** to the underwriting agreement (the “**Underwriting Agreement**”) to be entered into among the Underwriters and the Company, providing for the public offering (the “**Public Offering**”) of shares of Common Stock (the “**Shares**”) and warrants to purchase shares of Common Stock (collectively, the “**Securities**”) pursuant to a registration statement filed or to be filed with the U.S. Securities and Exchange Commission (the “**SEC**”). Capitalized terms used herein and not otherwise defined shall have the meanings set forth for them in the Underwriting Agreement.

In consideration of the Underwriters’ agreement to enter into the Underwriting Agreement and to proceed with the Public Offering of the Securities, and for other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned hereby agrees, for the benefit of the Company, the Representative and the other Underwriters that, without the prior written consent of the Representative, the undersigned will not, during the period specified in the following paragraph (the “**Lock-Up Period**”), directly or indirectly, unless otherwise provided herein, (a) offer, sell, agree to offer or sell, solicit offers to purchase, grant any call option or purchase any put option with respect to, pledge, encumber, assign, borrow or otherwise dispose of (each a “**Transfer**”) any Relevant Security (as defined below) or otherwise publicly disclose the intention to do so, or (b) establish or increase any “put equivalent position” or liquidate or decrease any “call equivalent position” with respect to any Relevant Security (in each case within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), and the rules and regulations thereunder) with respect to any Relevant Security or otherwise enter into any swap, derivative or other transaction or arrangement that Transfers to another, in whole or in part, any economic consequence of ownership of a Relevant Security, whether or not such transaction is to be settled by the delivery of Relevant Securities, other securities, cash or other consideration, or otherwise publicly disclose the intention to do so. As used herein, the term “**Relevant Security**” means any share of Common Stock, any warrant to purchase shares of Common Stock or any other security of the Company or any other entity that is convertible into, or exercisable or exchangeable for, shares of Common Stock or any other equity security of the Company, in each case owned beneficially or otherwise by the undersigned on the date of closing of the Public Offering or acquired by the undersigned during the Lock-Up Period.

The restrictions in the foregoing paragraph shall not apply to any exercise (including a cashless exercise or broker-assisted exercise and payment of tax obligations) of options or warrants to purchase shares of Common Stock; provided that any shares of Common Stock received upon such exercise, conversion or exchange will be subject to this Lock-Up Period. The Lock-Up Period will commence on the date of this Lock-up Agreement and continue and include the date that is one-hundred and eighty (180) days after the closing of the Public Offering.

In addition, the undersigned further agrees that, except for the registration statement filed or to be filed in connection with the Public Offering, during the Lock-Up Period the undersigned will not, without the prior written consent of the Representative: (a) file or participate in the filing with the SEC of any registration statement or circulate or participate in the circulation of any preliminary or final prospectus or other disclosure document, in each case with respect to any proposed offering or sale of a Relevant Security, or (b) exercise any rights the undersigned may have to require registration with the SEC of any proposed offering or sale of a Relevant Security.

In furtherance of the undersigned’s obligations hereunder, the undersigned hereby authorizes the Company during the Lock-Up Period to cause any transfer agent for the Relevant Securities to decline to transfer, and to note stop transfer restrictions on the stock register and other records relating to, Relevant Securities for which the undersigned is the record owner and the transfer of which would be a violation of this Lock-Up Agreement and, in the case of Relevant Securities for which the undersigned is the beneficial but not the record owner, agrees that during the Lock-Up Period it will cause the record owner to cause the relevant transfer agent to decline to transfer, and to note stop transfer restrictions on the stock register and other records relating to, such Relevant Securities to the extent such transfer would be a violation of this Lock-Up Agreement.

Notwithstanding the foregoing, the undersigned may transfer the undersigned's Relevant Securities:

- (i) as a *bona fide* gift or gifts,
- (ii) to any trust, partnership, limited liability company or other legal entity commonly used for estate planning purposes which is established for the direct or indirect benefit of the undersigned or a member of members of the immediate family of the undersigned,
- (iii) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (1) to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 under the Securities Act of 1933, as amended) of the undersigned, (2) to limited partners, limited liability company members or stockholders of the undersigned, or (3) in connection with a sale, merger or transfer of all or substantially all of the assets of the undersigned or any other change of control of the undersigned, not undertaken for the purpose of avoiding the restrictions imposed by this Lock-Up Agreement,
- (iv) if the undersigned is a trust, to the beneficiary of such trust,
- (v) by testate or intestate succession,
- (vi) by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement, or
- (vii) pursuant to the Underwriting Agreement;

provided, in the case of clauses (i)-(vi), that (A) such transfer shall not involve a disposition for value, (B) the transferee agrees in writing with the Underwriters and the Company to be bound by the terms of this Lock-Up Agreement, and (C) such transfer would not require any filing under Section 16(a) of the Exchange Act and no such filing is voluntarily made.

For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement and that this Lock-Up Agreement has been duly authorized (if the undersigned is not a natural person) and constitutes the legal, valid and binding obligation of the undersigned, enforceable in accordance with its terms. Upon request, the undersigned will execute any additional documents necessary in connection with the enforcement hereof. Any obligations of the undersigned shall be binding upon the successors and assigns of the undersigned from the date of this Lock-Up Agreement.

The undersigned understands that, if the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Securities to be sold thereunder, the undersigned shall be released from all obligations under this Lock-Up Agreement.

The undersigned, whether or not participating in the Public Offering, understands that the Underwriters are entering into the Underwriting Agreement and proceeding with the Public Offering in reliance upon this Lock-Up Agreement.

This Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof. Delivery of a signed copy of this Lock-Up Agreement by facsimile or e-mail/pdf transmission shall be effective as the delivery of the original hereof.

Very truly yours,

Signature: _____

Name (printed): _____

Title (if applicable): _____

Entity (if applicable): _____

EXHIBIT B

OFFICERS' CERTIFICATE

ZIVO BIOSCIENCE, INC.

The undersigned, Andrew D. Dahl and Philip M. Rice II, the duly elected and duly qualified Chief Executive Officer and Chief Financial Officer, respectively, of Zivo Bioscience, Inc., a Nevada corporation (the "Company"), hereby certify the following on behalf of the Company, in connection with the transactions contemplated by the Underwriting Agreement (the "Underwriting Agreement"), dated [___], 2020, by and between the Company and Maxim Group LLC, as representative of the several Underwriters named on Schedule I thereto:

1. The undersigned officers have carefully examined the Registration Statement, the General Disclosure Package, any Issuer Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, as of time it became effective and as of the Closing Date did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the General Disclosure Package, as of its date and as of the Closing Date, any Issuer Free Writing Prospectus as of its date and as of the Closing Date and the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading.
2. Since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the General Disclosure Package or the Prospectus.
3. To the best of their knowledge after reasonable investigation, as of the Closing Date, the representations and warranties of the Company in the Underwriting Agreement are true and correct and the Company has complied in all material respects with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date.
4. There has not been, subsequent to September 30, 2020, any material adverse change in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a Material Adverse Effect.
5. All correspondence between the Company or its counsel and the Commission are accurate and complete in all material respects.

Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in the Underwriting Agreement.

This certificate is to assist the Underwriters in conducting and documenting their investigation of the affairs of the Company in connection with the Offering of the Securities pursuant to the terms of the Underwriting Agreement and the other transactions described in the Transaction Documents, and each of the Underwriters, Gracin & Marlow, LLP and Honigman LLP is entitled to rely on this Certificate for such purpose and (if applicable) in connection with the delivery by such counsel of their respective legal opinions and negative assurance statement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the undersigned have executed this Officers' Certificate on behalf of the Company as of this [] day of [], 2020.

Name: Andrew D. Dahl
Title: Chief Executive Officer

Name: Philip M. Rice II
Title: Chief Financial Officer

[SIGNATURE PAGE TO OFFICERS' CERTIFICATE]

EXHIBIT C

SECRETARY'S CERTIFICATE

ZIVO BIOSCIENCE, INC.

[], 2020

The undersigned, acting solely in his/her capacity as the duly elected, qualified and acting Secretary of Zivo Bioscience, Inc., a Nevada corporation (the "Company"), and not in his/her individual capacity, hereby gives this certificate pursuant to Section 2.3(i) of that certain underwriting agreement, dated [], 2020, by and between the Company and Maxim Group LLC, as representative of the several Underwriters named on Schedule I thereto (the "Underwriting Agreement"). Unless otherwise defined herein, the capitalized terms used herein shall have the meanings ascribed to them in the Underwriting Agreement.

The undersigned, [Norman Gardner], Secretary of the Company, hereby certifies as of the date hereof as follows:

1. Attached hereto as Exhibit A is a true, correct and complete copy of the Company's articles of incorporation, as amended, in effect on the date hereof (the "Articles of Incorporation"). The Articles of Incorporation is in full force and effect on the date hereof, and no amendments or modifications to the Articles of Incorporation have been authorized or filed with the Secretary of State of the State of Nevada.

2. Attached hereto as Exhibit B is a true, correct and complete copy of the Company's amended and restated bylaws, in effect on the date hereof (the "Bylaws"), and no amendments or modifications to the Bylaws have been authorized.

3. Attached hereto as Exhibit C is a true, correct and complete copies of resolutions duly adopted by the Company's board of directors or a committee thereof at meetings held on [], 2020 and [], 2020, in which the transactions contemplated by the Registration Statement, the Prospectus and the Transaction Documents were authorized and approved. Such resolutions are in full force and effect, have not been amended, modified or rescinded and are the only resolutions related to the subject matter thereof.

4. Each person who, as a director or officer of the Company, signed, and delivered by facsimile, portable document file (.pdf) or otherwise (a) the Underwriting Agreement, (b) the Transaction Documents and (c) any and all other documents or instruments executed and delivered to the Representative in connection with the transactions contemplated by the Underwriting Agreement, was duly elected or appointed, qualified and acting as such director or officer, and was duly authorized to execute and deliver such documents or other instruments at the respective times of such execution and delivery.

5. All persons who, as officers or directors of the Company or attorneys-in-fact of such officers or directors, signed, and delivered by facsimile, portable document file (.pdf) or otherwise: (a) the Registration Statement on Form S-1, as amended (File No. 333-[]), that the Company filed with the Commission on [], 2020 and [], 2020, which was subsequently declared effective by the Commission on [], 2020, and (b) any and all other documents or instruments executed and delivered to the Commission in connection with such Registration Statement were, at the respective times of such signing, delivery or filing, duly elected or appointed, qualified and acting as such director, officer or duly appointed and acting as such attorney-in-fact, and the signatures of such persons appearing on such documents are their genuine signatures or true facsimiles or portable document thereof.

6. Attached hereto as Exhibit D are true, correct and complete copies of a good standing (or equivalent) certificate as of a recent date for the Company and each Subsidiary by the relevant authority of its jurisdiction of incorporation or organization, and such certificates attached thereto have not been amended (except as attached thereto) since the date reflected thereon.

7. Andrew D. Dahl, the Company's Chief Executive Officer, has executed and delivered on behalf of the Company the Underwriting Agreement and the other Transaction Documents in accordance with their respective terms thereof.

This certificate is to assist the Underwriters in conducting and documenting their investigation of the affairs of the Company in connection with the Offering of the Securities pursuant to the terms of the Underwriting Agreement and the other transactions described in the Transaction Documents, and each of the Underwriters, Gracin & Marlow, LLP and Honigman LLP is entitled to rely on this Certificate for such purpose and (if applicable) in connection with the delivery by such counsel of their respective legal opinions and negative assurance statement.

This certificate may be executed in multiple counterparts, each of which shall be deemed an original, and all of which taken together shall constitute one and the same instrument. Delivery of an executed signature page of this certificate by electronic or facsimile transmission shall be as effective as delivery of a manually executed counterpart hereof.

IN WITNESS WHEREOF, I have hereunder signed my name on this [] day of [], 2020.

Name: []

Title: Secretary

The undersigned as Chief Executive Officer of the Company hereby certifies that [] is the duly elected, appointed, qualified and acting Secretary of the Company, and that the signature appearing above is his genuine signature.

Andrew D. Dahl, Chief Executive Officer

[Signature page to Zivo Bioscience, Inc. Secretary's Certificate]

Secretary's Certificate

Exhibit A

Articles of Incorporation

Secretary's Certificate

Exhibit B

Bylaws

Secretary's Certificate

Exhibit C

Board Resolutions

Secretary's Certificate

Exhibit D

Good Standing Certificates

EXHIBIT D

CHIEF FINANCIAL OFFICER'S CERTIFICATE

ZIVO BIOSCIENCE, INC.

[], 2020

I, Philip M. Rice II, do hereby certify that I am the Chief Financial Officer, of Zivo Bioscience, Inc., a Nevada corporation (the "Company"), and, in my capacity as such and not in any individual capacity, and based upon a diligent examination of the financial records of the Company, the scope and nature of such examination being designed to identify information relevant to the subjects addressed below, do hereby certify to the Representative (as defined below) that:

1. I am providing this certificate in connection with the offering (the "Offering") by the Company of an aggregate of [] Units ("Units"), with each Unit consisting of one share of the Company's common stock, par value \$0.001 per share (the "Common Stock") and one warrant to purchase one share of Common Stock pursuant to Section 2.3(j) of that certain underwriting agreement, dated [], 2020 (the "Underwriting Agreement"), by and between the Company and Maxim Group LLC, as representative of the several Underwriters named on Schedule I thereto. The Offering is being made pursuant to the registration statement on Form S-1, as amended (File No. 333-[]) (the "Registration Statement") that was filed with the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended, and that was subsequently declared effective by the SEC on [], 2020. Unless otherwise defined herein, the capitalized terms used herein shall have the meanings ascribed to them in the Underwriting Agreement.

2. I am familiar with the accounting, operations and records systems of the Company and its subsidiaries and I have responsibility for the Company's financial and accounting matters. I have (i) read the Registration Statement and the Prospectus; and (ii) supervised the compilation of and reviewed the financial information set forth in the Registration Statement and the Prospectus (collectively, the "Financial Information"). Such Financial Information has been derived from the applicable accounting or financial records of the Company or its subsidiaries, which I believe, to the best of my knowledge, are accurate, complete and reliable.

3. There were no significant decreases in the Company's cash and cash equivalents, total current liabilities and operating expenses during the Company's fiscal quarter ended September 30, 2020 as compared with amounts shown on the Company's unaudited interim financial statements for the fiscal quarter ended September 30, 2019, except as disclosed in the Registration Statement or the Prospectus.

4. I have prepared or reviewed the amounts and information identified in the pages of the Registration Statement and the Prospectus [and Company's presentation], attached as Annex A hereto (collectively, the "Financial and Numerical Information"). To the best of my knowledge, such Financial and Numerical Information, as of the date hereof, matches or is accurately derived from the applicable accounting or financial records of the Company or its subsidiaries.

This certificate is to assist the Underwriters in conducting and documenting their investigation of the affairs of the Company in connection with the Offering of the Securities pursuant to the terms of the Underwriting Agreement and the other transactions described in the Transaction Documents, and each of the Underwriters, Gracin & Marlow, LLP and Honigman LLP is entitled to rely on this Certificate for such purpose and (if applicable) in connection with the delivery by such counsel of their respective legal opinions and negative assurance statement.

[Signature page follows]

IN WITNESS WHEREOF, the undersigned has executed and delivered this Chief Financial Officer Certificate on behalf of the Company as of the date first written above.

ZIVO BIOSCIENCE, INC.

By: _____
Name: Philip M. Rice II
Title: Chief Financial Officer

[Signature page to Chief Financial Officer Certificate—Zivo Bioscience, Inc.]

EXHIBIT E
FORM OF WARRANT

[attached hereto]

EXHIBIT F

FORM OF REPRESENTATIVE'S WARRANT

[attached hereto]

EXHIBIT G

FORM OF WARRANT AGENT AGREEMENT

[attached hereto]

Form of Representative's Warrant Agreement

THE REGISTERED HOLDER OF THIS PURCHASE WARRANT BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE, OR BE THE SUBJECT OF ANY HEDGING, SHORT SALE, DERIVATIVE, PUT, OR CALL TRANSACTION THAT WOULD RESULT IN THE EFFECTIVE ECONOMIC DISPOSITION OF THIS PURCHASE WARRANT OR THE UNDERLYING SECURITIES FOR A PERIOD OF ONE HUNDRED EIGHTY (180) DAYS IMMEDIATELY FOLLOWING THE EFFECTIVE DATE (DEFINED BELOW) EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS PURCHASE WARRANT AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE, OR BE THE SUBJECT OF ANY HEDGING, SHORT SALE, DERIVATIVE, PUT, OR CALL TRANSACTION THAT WOULD RESULT IN THE EFFECTIVE ECONOMIC DISPOSITION OF, THIS PURCHASE WARRANT OR THE UNDERLYING SECURITIES FOR A PERIOD OF ONE HUNDRED EIGHTY (180) DAYS IMMEDIATELY FOLLOWING THE EFFECTIVE DATE TO ANYONE OTHER THAN (I) MAXIM PARTNERS LLC OR ANY UNDERWRITER OR A SELECTED DEALER IN CONNECTION WITH THE OFFERING, OR (II) A BONA FIDE OFFICER OR PARTNER OF MAXIM PARTNERS LLC, OR OF ANY SUCH UNDERWRITER OR SELECTED DEALER.

THIS PURCHASE WARRANT IS NOT EXERCISABLE PRIOR TO [_____] [DATE THAT IS 180 DAYS FROM THE EFFECTIVE DATE OF THE OFFERING]. VOID AFTER 5:00 P.M., EASTERN TIME, [_____] [DATE THAT IS FIVE (5) YEARS FROM THE EFFECTIVE DATE OF THE OFFERING].

WARRANT TO PURCHASE COMMON STOCK

ZIVO BIOSCIENCE, INC.

Warrant Shares: [_____]¹

Initial Issuance Date: [_____]

Initial Exercise Date: [_____]

THIS WARRANT TO PURCHASE COMMON STOCK (the "Warrant") certifies that, for value received, [Maxim Partners, LLC][_____] 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 _____, 2020 [DATE THAT IS 180 DAYS FROM THE EFFECTIVE DATE] (the "Initial Exercise Date") and, in accordance with FINRA Rule 5110(f)(2)(G)(i), prior to at 5:00 p.m. (New York time) on [_____] 2025, the date that is five (5) years following the Effective Date (the "Termination Date") but not thereafter, to subscribe for and purchase from ZIVO BIOSCIENCE, INC., a Nevada corporation (the "Company"), up to [_____]¹ shares of common stock, par value \$0.001 per share, of the Company (the "Warrant Shares"), as subject to adjustment hereunder. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated in this Section 1:

"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.

"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 that banks shall not be deemed to be authorized or obligated to be closed due to a "shelter in place," "non-essential employee" or similar closure of physical branch locations at the direction of any governmental authority if such banks' electronic funds transfer systems (including for wire transfers) are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Effective Date" means the effective date of the registration statement on Form S-1, as amended (File No. 333-[____]), pursuant to which this Warrant is initially issued.

¹ Equal to 8% of the Closing Shares included in the Closing Units sold in the Offering (excluding the Closing Warrants and any Securities issued pursuant to the over-allotment option).

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

“Offering” shall have the meaning ascribed to such term in Section 2.1(c) of the Underwriting Agreement.

“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.

“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.

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

“Trading Day” means a day on which the New York Stock Exchange is open for trading.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is 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).

“Underwriting Agreement” means the underwriting agreement for the Offering, dated [____], 2020, by and between the Company and Maxim Group LLC, as representative of the underwriters set forth therein.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock 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 L.P. (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 a share of Common Stock for such date (or the nearest preceding date) on the OTCQB or OTCQX as applicable, (c) if Common Stock is not then listed or quoted for trading on the OTCQB or OTCQX and if prices for 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 the Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) 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 (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise Form annexed hereto. Within two (2) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the 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 form 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 five (5) Trading Days of the date 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 available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. 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 Form within two (2) Business Days of receipt of such notice. **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 per share of the Common Stock under this Warrant shall be \$[]², subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at any time on or after the Initial Exercise Date, there is no effective registration statement registering, 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 the 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)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) the VWAP on the Trading Day immediately preceding the date 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, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

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).

² 110% of the public offering price per Unit sold in the Offering.

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by its transfer agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company 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 Holder, or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 and, in either case, the Warrant Shares have been sold by the Holder prior to the Warrant Share Delivery Date (as defined below), and otherwise by physical delivery of a certificate, 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 two (2) Trading Days after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). If the Warrant Shares can be delivered via DWAC, the transfer agent shall have received from the Company, at the expense of the Company, any legal opinions or other documentation required by it to deliver such Warrant Shares without legend (subject to receipt by the Company of reasonable back up documentation from the Holder, including with respect to affiliate status) and, if applicable and requested by the Company prior to the Warrant Share Delivery Date, the transfer agent shall have received from the Holder a confirmation of sale of the Warrant Shares (provided the requirement of the Holder to provide a confirmation as to the sale of Warrant Shares shall not be applicable to the issuance of unlegended Warrant Shares upon a cashless exercise of this Warrant if the Warrant Shares are then eligible for resale pursuant to Rule 144(b)(1)). The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the second Trading Day following the Warrant Share Delivery Date, 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 fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such 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 its transfer agent to deliver 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; provided, however, that the Holder shall be required to return any Warrant Shares or Common Stock subject to any such rescinded exercise notice concurrently with the return to Holder of the aggregate Exercise Price paid to the Company for such Warrant Shares and the restoration of Holder's right to acquire such Warrant Shares pursuant to this Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

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 its transfer agent to transmit to the Holder the Warrant Shares pursuant to an exercise on or before the Warrant Share Delivery Date, 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 Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to 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 Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock 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 of 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 shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

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

vi. Charges, Taxes and Expenses. Issuance 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 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. The Company shall pay all transfer agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (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.

viii. Signature. This Section 2 and the exercise form attached hereto set forth the totality of the procedures required of the Holder in order to exercise this Purchase Warrant. Without limiting the preceding sentences, no ink-original exercise form shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any exercise form be required in order to exercise this Purchase Warrant. No additional legal opinion, other information or instructions shall be required of the Holder to exercise this Purchase Warrant. The Company shall honor exercises of this Purchase Warrant and shall deliver Shares underlying this Purchase Warrant in accordance with the terms, conditions and time periods set forth herein.

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 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), 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 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 Common Stock 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 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. 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 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 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. 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. 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 Company's 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 two Trading Days 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 since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 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 the 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 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 shares of Common Stock 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 the 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 shall remain 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 re-classification. For the purposes of clarification, the Exercise Price of this Warrant will not be adjusted in the event that the Company or any Subsidiary thereof, as applicable, sells or grants any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any Common Stock or Common Stock Equivalents, at an effective price per share less than the Exercise Price then in effect.

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 shares 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, 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 (other than cash dividends) 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 shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (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, 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). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

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, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets 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 Common Stock, (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, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (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 by holders of Common Stock as a result of such Fundamental Transaction for each share 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. 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 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 date of such Fundamental Transaction, the provisions of this Warrant 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 with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, 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.

g) 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 mail to the Holder 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 (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the 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 shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize 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 mailed a notice to the Holder at its last 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, 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 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 Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to provide such notice or any defect therein shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder 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.

Section 4. Transfer of Warrant.

a) Transferability. Pursuant to FINRA Rule 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the Effective Date or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

- i. by operation of law or by reason of reorganization of the Company;
- ii. to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;
- iii. if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered;
- iv. that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or
- v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction, any applicable securities laws and the conditions set forth in Section 4(d), 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 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 the Holder delivers an assignment form to the Company assigning this Warrant 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.

d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Registration Rights.

a) Demand Registration

i. Grant of Right. The Company, upon written demand (a “Demand Notice”) of the Holder(s) of at least 51% of the Warrants and/or the underlying Warrant Shares (“Majority Holders”), agrees to register (a “Demand Registration”), on two occasions, all or any portion of the Warrant Shares underlying the Warrants (collectively, the “Registrable Securities”). Upon such Demand Registration, the Company will file a registration statement with the Commission covering the Registrable Securities within thirty (30) days after receipt of a Demand Notice and use its commercially reasonable efforts to have the registration statement declared effective promptly thereafter, subject to compliance with review by the Commission; provided, however, that the Company shall not be required to comply with a Demand Notice if the Company has filed a registration statement with respect to which the Holder is entitled to piggyback registration rights pursuant to Section 5(b) hereof and either: (i) the Holder has elected to participate in the offering covered by such registration statement, or (ii) if such registration statement relates to an underwritten primary offering of securities of the Company, until the offering covered by such registration statement has been withdrawn or until thirty (30) days after such offering is consummated. Either Demand Registration may be made at any time beginning on the Initial Exercise Date and expiring on the fifth anniversary of the Effective Date. The Company covenants and agrees to give written notice of its receipt of any Demand Notice by any Holder(s) to all other registered Holders of the Warrants and/or the Registrable Securities within ten (10) days after the date of the receipt of any such Demand Notice.

ii. Terms. The Company shall bear all fees and expenses attendant to the first Demand Registration of the Registrable Securities pursuant to Section 5(a), but the Holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. The Holders shall bear all fees and expenses attendant to the second Demand Registration of the Registrable Securities pursuant to Section 5(a), including any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. A registration will not count as a Demand Registration until the registration statement filed with the Commission with respect to such Demand Registration has been declared effective and the Company has complied with all of its obligations under hereunder with respect thereto; provided, however, that if, after such registration statement has been declared effective, the offering of the Registrable Securities pursuant to a Demand Registration is interfered with by any stop order or injunction of the Commission or any other governmental agency or court, the registration statement with respect to such Demand Registration will be deemed not to have been declared effective, unless and until, (i) such stop order or injunction is removed, rescinded or otherwise terminated, and (ii) the Holder thereafter elect to continue the offering. The Company agrees to use its commercially reasonable efforts to cause the filing required herein to become effective promptly and to qualify or register the Registrable Securities in such States as are reasonably requested by the Holder(s); provided, however, that in no event shall the Company be required to register the Registrable Securities in a State in which such registration would cause: (i) the Company to be obligated to register or license to do business in such State or submit to general service of process in such State, or (ii) the principal stockholders of the Company to be obligated to escrow their shares of capital stock of the Company. The Company shall cause any registration statement filed pursuant to the Demand Registration right granted under Section 5(a) to remain effective for a period of at least twelve (12) consecutive months after the date that the Holders of the Registrable Securities covered by such registration statement are first given the opportunity to sell all of such securities. The Holders shall only use the prospectuses provided by the Company to sell the Warrant Shares covered by such registration statement, and will immediately cease to use any prospectus furnished by the Company if the Company advises the Holder that such prospectus may no longer be used due to a material misstatement or omission. The Holder shall be entitled to a maximum of two (2) Demand Registrations under this Section 5(a)(ii) on only two (2) occasions described herein and such Demand Registration rights shall terminate on the fifth (5th) anniversary of the Effective Date.

b) “Piggy-Back” Registration.

i. Grant of Right. The Holder shall have the right, for a period of no more than three (3) years from the Initial Exercise Date in compliance with applicable FINRA Rule rules, to include the Registrable Securities as part of any other registration of securities filed by the Company (other than in connection with a transaction contemplated by Rule 145(a) promulgated under the Securities Act or pursuant to Form S-8 or any equivalent form); provided, however, that if, solely in connection with any primary underwritten public offering for the account of the Company, the managing underwriter(s) thereof shall, in its reasonable discretion, impose a limitation on the number of Shares which may be included in the Registration Statement because, in such underwriter(s)' judgment, marketing or other factors dictate such limitation is necessary to facilitate public distribution, then the Company shall be obligated to include in such Registration Statement only such limited portion of the Registrable Securities with respect to which the Holder requested inclusion hereunder as the underwriter shall reasonably permit. Any exclusion of Registrable Securities shall be made pro rata among the Holders seeking to include Registrable Securities in proportion to the number of Registrable Securities sought to be included by such Holders; provided, however, that the Company shall not exclude any Registrable Securities unless the Company has first excluded all outstanding securities, the holders of which are not entitled to inclusion of such securities in such Registration Statement or are not entitled to pro rata inclusion with the Registrable Securities.

ii. Terms. The Company shall bear all fees and expenses attendant to registering the Registrable Securities pursuant to Section 5(b)(i) hereof, but the Holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. In the event of such a proposed registration, the Company shall furnish the then Holders of outstanding Registrable Securities with not less than thirty (30) days written notice prior to the proposed date of filing of such registration statement. Such notice to the Holders shall continue to be given for each registration statement filed by the Company during the three (3) year period following the Initial Exercise Date until such time as all of the Registrable Securities have been sold by the Holder. The holders of the Registrable Securities shall exercise the “piggy-back” rights provided for herein by giving written notice within ten (10) days of the receipt of the Company’s notice of its intention to file a registration statement. Except as otherwise provided in this Warrant, there shall be no limit on the number of times the Holder may request registration under this Section 5(b)(ii); provided, however, that such registration rights shall terminate on the third (3rd) anniversary of the Effective Date.

c) General Terms

i. Indemnification. The Company shall indemnify the Holder(s) of the Registrable Securities to be sold pursuant to any registration statement hereunder and each person, if any, who controls such Holders within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act against all loss, claim, damage, expense or liability (including all reasonable attorneys’ fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which any of them may become subject under the Securities Act, the Exchange Act or otherwise, arising from such registration statement but only to the same extent and with the same effect as the provisions pursuant to which the Company has agreed to indemnify the Underwriters contained in Section 6.1 of the Underwriting Agreement. The Holder(s) of the Registrable Securities to be sold pursuant to such registration statement, and their successors and assigns, shall severally, and not jointly, indemnify the Company, against all loss, claim, damage, expense or liability (including all reasonable attorneys’ fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which they may become subject under the Securities Act, the Exchange Act or otherwise, arising from information furnished by or on behalf of such Holders, or their successors or assigns, in writing, for specific inclusion in such registration statement to the same extent and with the same effect as the provisions contained in Section 6.2 of the Underwriting Agreement pursuant to which the Underwriters have agreed to indemnify the Company.

ii. Exercise of Warrants. Nothing contained in this Warrant shall be construed as requiring the Holder(s) to exercise their Warrants prior to or after the initial filing of any registration statement or the effectiveness thereof.

iii. Documents Delivered to Holders. The Company shall furnish to each Holder participating in any of the foregoing offerings and to each underwriter of any such offering, if any, a signed counterpart, addressed to such Holder or underwriter, of: (i) an opinion of counsel to the Company, dated the effective date of such registration statement (and, if such registration includes an underwritten public offering, an opinion dated the date of the closing under any underwriting agreement related thereto), and (ii) a “cold comfort” letter dated the effective date of such registration statement (and, if such registration includes an underwritten public offering, a letter dated the date of the closing under the underwriting agreement) signed by the independent registered public accounting firm which has issued a report on the Company’s financial statements included in such registration statement, in each case covering substantially the same matters with respect to such registration statement (and the prospectus included therein) and, in the case of such accountants’ letter, with respect to events subsequent to the date of such financial statements, as are customarily covered in opinions of issuer’s counsel and in accountants’ letters delivered to underwriters in underwritten public offerings of securities. The Company shall also deliver promptly to each Holder participating in the offering requesting the correspondence and memoranda described below and to the managing underwriter, if any, copies of all correspondence between the Commission and the Company, its counsel or auditors and all memoranda relating to discussions with the Commission or its staff with respect to the registration statement and permit each Holder and underwriter to do such investigation, upon reasonable advance notice, with respect to information contained in or omitted from the registration statement as it deems reasonably necessary to comply with applicable securities laws or rules of FINRA. Such investigation shall include access to books, records and properties and opportunities to discuss the business of the Company with its officers and independent auditors, all to such reasonable extent and at such reasonable times as any such Holder shall reasonably request.

iv. Underwriting Agreement. The Company shall enter into an underwriting agreement with the managing underwriter(s), if any, selected by any Holders whose Registrable Securities are being registered pursuant to this Section 5, which managing underwriter shall be reasonably satisfactory to the Company. Such agreement shall be reasonably satisfactory in form and substance to the Company, each Holder and such managing underwriters, and shall contain such representations, warranties and covenants by the Company and such other terms as are customarily contained in agreements of that type used by the managing underwriter. The Holders shall be parties to any underwriting agreement relating to an underwritten sale of their Registrable Securities and may, at their option, require that any or all the representations, warranties and covenants of the Company to or for the benefit of such underwriters shall also be made to and for the benefit of such Holders. Such Holders shall not be required to make any representations or warranties to or agreements with the Company or the underwriters except as they may relate to such Holders, their Warrant Shares and their intended methods of distribution.

v. Documents to be Delivered by Holder(s). Each of the Holder(s) participating in any of the foregoing offerings shall furnish to the Company a completed and executed questionnaire provided by the Company requesting information customarily sought of selling security holders.

vi. Damages. Should the registration or the effectiveness thereof required by Sections 5(a) hereof be delayed by the Company or the Company otherwise fails to comply with such provisions, the Holder(s) shall, in addition to any other legal or other relief available to the Holder(s), be entitled to obtain specific performance or other equitable (including injunctive) relief against the threatened breach of such provisions or the continuation of any such breach, without the necessity of proving actual damages and without the necessity of posting bond or other security.

Section 6. Miscellaneous.

a) No Rights as Stockholder Until Exercise. 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).

b) 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 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.

c) 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.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares 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 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 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.

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

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

g) 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 Underwriting 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.

h) 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 Underwriting Agreement.

i) 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 Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) 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.

k) 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.

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

m) 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.

n) 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 register and 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 or by physical delivery of a certificate to:

(4) Accredited Investor. If the Warrant is being exercised via cash exercise, the undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended

[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.)

FOR VALUE RECEIVED, [] all of or [] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____.

Dated: _____, _____

Holder's
Signature: _____

Holder's Address: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

COMMON STOCK PURCHASE WARRANT

ZIVO BIOSCIENCE, INC.

Warrant Shares: [_____]

Original Issuance Date: [____], 2020

THIS COMMON STOCK PURCHASE WARRANT (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 “Original Issuance Date”) and on or prior to 5:00 p.m. (New York City time) on [____] ¹ (the “Termination Date”) but not thereafter, to subscribe for and purchase from ZIVO Bioscience, Inc., a Nevada corporation (the “Company”), up to _____ shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee (“DTC”) shall initially be the sole registered holder of this Warrant, subject to the Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“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.

“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 that banks shall not be deemed to be authorized or obligated to be closed due to a “shelter in place,” “non-essential employee” or similar closure of physical branch locations at the direction of any governmental authority if such banks’ electronic funds transfer systems (including for wire transfers) are open for use by customers on such day.

“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..

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

“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.

“Registration Statement” means the Company’s registration statement on Form S-1, as amended (File No. 333-[____]).

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

¹ Insert the date that is the five year anniversary of the Original Issuance Date; provided, however, that, if such date is not a Business Day, insert the immediately following Business Day.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is 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).

“Transfer Agent” means Issuer Direct Corporation, the current transfer agent of the Company with a mailing address of 500 Perimeter Park Drive, Morrisville, NC 27560, a phone number of [] and an email address of [].com, and any successor transfer agent of 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 L.P. (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 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 holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrant Agent Agreement” means that certain warrant agent agreement, dated on or about the Original Issuance Date, between the Company and the Warrant Agent.

“Warrant Agent” means Direct Transfer LLC and any successor warrant agent of the Company.

“Warrants” means this Warrant and other Common Stock purchase warrants issued by the Company and delivered to the purchasers thereof pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Subject to the provisions of Section 2(c) herein, 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 Original Issuance Date and on or before close of business on the Termination Date by delivery to the Company or Warrant Agent (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of 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 annexed hereto (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 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 or the Warrant Agent 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 or Warrant Agent 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 available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company or Warrant Agent shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **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.**

Notwithstanding the foregoing in this Section 2(a), a Holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2(a) by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

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

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, 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) = the last VWAP immediately preceding the time of delivery of the Notice of Exercise giving rise to the applicable "cashless exercise", as set forth in the applicable Notice of Exercise (to clarify, the "last VWAP" will be the last VWAP as calculated over an entire Trading Day such that, in the event that this Warrant is exercised at a time that the Trading Market is open, the prior Trading Day's VWAP shall be used in this calculation);

(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).

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 to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company 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 a certificate, 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 earlier of: (i) two (2) Trading Days after the delivery to the Company or the Warrant Agent of the Notice of Exercise, and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company or the Warrant Agent of the Notice of Exercise, all subject to receipt of any cash payments required by the Holder (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, 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 fifth (5th) Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. Notwithstanding the forgoing, the Warrant Agent shall not, in any event, be subject to, or responsible for, liquidated damages as contemplated by this Section 2(d)(i). The Company agrees to maintain a 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.

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 such failure that is 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 Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to 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 Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock 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 of 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 shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof. Notwithstanding the forgoing, the Warrant Agent shall not, in any event, be subject to, or responsible for, Buy-In penalties contemplated by this Section 2(d)(iv).

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall round up to the nearest whole share.

vi. Charges, Taxes and Expenses. Issuance 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 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. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (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 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 Common Stock 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. 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. 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 two Trading Days 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, upon election by a Holder prior to the issuance of any Warrants, 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 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 the 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 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 shares of Common Stock 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 the 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 shall remain 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 re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time after the issuance of this Warrant the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to all of the record holders of any class of shares 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, 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).

c) 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 all of 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) (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, 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).

d) 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, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets 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 Common Stock, (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, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (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. 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 in accordance with the provisions of this Section 3(d) pursuant to written agreements 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). Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant 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 with the same effect as if such Successor Entity had been named as the Company herein. For the avoidance of doubt, if, at any time while this Warrant is outstanding, a Fundamental Transaction occurs, pursuant to the terms of this Section 3(d), the Holder shall not be entitled to receive more than one of (i) the 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, or (ii) the assumption by the Successor Entity of all of the obligations of the Company under this Warrant and the option to receive a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, 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.

f) 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 (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the 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 shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize 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 twenty (20) calendar days prior to the applicable record or effective date hereinafter specified, a notice (unless such information is filed with the Commission, in which case a notice shall not be required) 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 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 Common Stock of record shall be entitled to exchange their shares of the 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.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder 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 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. The Warrant Agent may require a medallion guarantee (or other type of guarantee or notarization) to effectuate an assignment or transfer of this Warrant. In order to effectuate a transfer (in whole or in part) of this Warrant, the Holder shall surrender this Warrant to the Company or the Warrant Agent 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. If this Warrant is not held in global form through DTC (or any successor depository), 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 Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company and the Warrant Agent 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) 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 the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 2(d)(i) and 2(d)(iv), In no event, including if the Company is for any reason unable to issue and deliver Warrant Shares upon exercise of this Warrant as required pursuant to the terms hereof, shall the Company be required to net cash settle an exercise of this Warrant or cash settle in any other form.

b) 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. The Company agrees to secure a bond on behalf of the Holder in connection with the replacement of such Warrant Certificates, if requested by the Warrant Agent.

c) 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.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares 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 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 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.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant 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 Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, 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, 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 suit, 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 suit, 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 Warrant 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, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

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

g) 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, 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.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 2804 Orchard Lake Rd., Suite 202, Keego Harbor, Michigan 48320, Attention: [____], E-mail: [____], or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Warrant Agent. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. Notwithstanding any other provision of this Warrant, where this Warrant provides for notice of any event to the Holder, if this Warrant is held in global form by DTC (or any successor depository), such notice shall be sufficiently given if given to DTC (or any successor depository) pursuant to the procedures of DTC (or such successor depository), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply. To the extent that any notice provided hereunder 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.

i) 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 Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) 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.

k) 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.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and either: (i) the Holder or the beneficial owner of this Warrant, on the other hand, or (ii) the vote or written consent of the Holders of at least 50.1% of the then outstanding Warrants issued pursuant to the Warrant Agent Agreement, on the other hand, provided that adjustments may be made to the Warrant terms and rights of this Warrant in accordance with Section 3 of this Warrant without the consent of any Holder or beneficial owner of the Warrants.

m) 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.

n) 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.

o) Warrant Agent Agreement. If this Warrant is held in global form through DTC (or any successor depository), this Warrant is issued subject to the Warrant Agent Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agent Agreement, the provisions of this Warrant shall govern and be controlling.

(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 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:

[Signature Guarantee]

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Warrant Agent, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Warrant Agent in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

WARRANT AGENT AGREEMENT

WARRANT AGENT AGREEMENT (this “Warrant Agreement”) dated as of [____], 2020 (the “Issuance Date”) between ZIVO Bioscience, Inc., a company incorporated under the laws of the State of Nevada (the “Company”), and Direct Transfer LLC, a Delaware limited liability company (the “Warrant Agent”).

WHEREAS, pursuant to the terms of that certain Underwriting Agreement (“Underwriting Agreement”), dated [____], 2020, by and between the Company and Maxim Group, LLC, as representative of the underwriters set forth therein, the Company is engaged in a public offering (the “Offering”) of up to [] units (the “Units”), each unit consisting of one share (each, a “Share” and collectively, the “Shares”) of common stock, par value \$0.001 per share (the “Common Stock”), of the Company, and one Warrant (each, a “Warrant” and collectively the “Warrants”) to purchase one share of Common Stock (each, a “Warrant Share” and collectively the “Warrant Shares”), including up to [] Shares and Warrants to purchase up to [] Warrant Shares issuable pursuant to the underwriters’ over-allotment option;

WHEREAS, the Company has filed with the Securities and Exchange Commission (the “Commission”) a Registration Statement, No. 333-[____], on Form S-1 (as the same may be amended from time to time, the “Registration Statement”), for the registration under the Securities Act of 1933, as amended (the “Securities Act”), of Units, the Shares, the Warrants, and the Warrant Shares, and such Registration Statement was declared effective on [____], 2020;

WHEREAS, the Company desires the Warrant Agent to act on behalf of the Company, and the Warrant Agent is willing to so act, in accordance with the terms set forth in this Warrant Agreement in connection with the issuance, registration, transfer, exchange and exercise of the Warrants;

WHEREAS, the Company desires to provide for the provisions of the Warrants, the terms upon which they shall be issued and exercised, and the respective rights, limitation of rights, and immunities of the Company, the Warrant Agent, and the holders of the Warrants; and

WHEREAS, all acts and things have been done and performed which are necessary to make the Warrants the valid, binding and legal obligations of the Company, and to authorize the execution and delivery of this Warrant Agreement.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, the parties hereto agree as follows:

1. Appointment of Warrant Agent. The Company hereby appoints the Warrant Agent to act as agent for the Company with respect to the Warrants, and the Warrant Agent hereby accepts such appointment and agrees to perform the same in accordance with the express terms and conditions set forth in this Warrant Agreement (and no implied terms or conditions).

2. Warrants.

2.1 Form of Warrants. The Warrants shall be registered securities and shall be initially evidenced by a global Warrant certificate (“Global Certificate”) in the form of Annex A to this Warrant Agreement, which shall be deposited on behalf of the Company with a custodian for The Depository Trust Company (“DTC”) and registered in the name of Cede & Co., a nominee of DTC. If DTC subsequently ceases to make its settlement system available for the Warrants, the Company may instruct the Warrant Agent regarding making arrangements for book-entry settlement. In the event that the Warrants are not eligible for registration, or it is no longer necessary to have the Warrants available, in the name of Cede & Co., a nominee of DTC, the Company may instruct the Warrant Agent to provide written instructions to DTC to deliver to the Warrant Agent for cancellation the Global Certificate, and the Company shall instruct the Warrant Agent to deliver to each Holder (as defined below) separate certificates evidencing Warrants (“Definitive Certificates”) and, together with the Global Certificate, “Warrant Certificates”), in the form of Annex C to this Warrant Agreement. The Warrants represented by the Global Certificate are referred to as “Global Warrants.”

2.2 Issuance and Registration of Warrants.

2.2.1 Warrant Register. The Warrant Agent shall maintain books (the “Warrant Register”) for the registration of original issuance and the registration of transfer of the Warrants.

2.2.2 Issuance of Warrants. Upon the initial issuance of the Warrants, the Warrant Agent shall issue the Global Certificate and deliver the Warrants in the DTC settlement system in accordance with written instructions delivered to the Warrant Agent by the Company. Ownership of beneficial interests in the Warrants shall be shown on, and the transfer of such ownership shall be effected through, records maintained (i) by DTC and (ii) by institutions that have accounts with DTC (each, a “Participant”), subject to a Holder’s right to elect to receive a Warrant in certificated form in the form of Annex C to this Warrant Agreement. Any Holder desiring to elect to receive a Warrant in certificated form shall make such request in writing delivered to the Warrant Agent pursuant to Section 2.2.8, and shall surrender to the Warrant Agent the interest of the Holder on the books of the Participant evidencing the Warrants which are to be represented by a Definitive Certificate through the DTC settlement system. Thereupon, the Warrant Agent shall countersign and deliver to the person entitled thereto a Warrant Certificate or Warrant Certificates, as the case may be, as so requested.

2.2.3 Beneficial Owner; Holder. Prior to due presentment for registration of transfer of any Warrant, the Company and the Warrant Agent may deem and treat the person in whose name that Warrant shall be registered on the Warrant Register (the “Holder”) as the absolute owner of such Warrant for purposes of any exercise thereof, and for all other purposes, and neither the Company nor the Warrant Agent shall be affected by any notice to the contrary. Notwithstanding the foregoing, nothing herein shall prevent the Company, the Warrant Agent or any agent of the Company or the Warrant Agent from giving effect to any written certification, proxy or other authorization furnished by DTC governing the exercise of the rights of a holder of a beneficial interest in any Warrant. The rights of beneficial owners in a Warrant evidenced by the Global Certificate shall be exercised by the Holder or a Participant through the DTC system, except to the extent set forth herein or in the Global Certificate.

2.2.4 Execution. The Warrant Certificates shall be executed on behalf of the Company by any authorized officer of the Company (an “Authorized Officer”), which need not be the same authorized signatory for all of the Warrant Certificates, either manually or by facsimile signature. The Warrant Certificates shall be countersigned by an authorized signatory of the Warrant Agent, which need not be the same signatory for all of the Warrant Certificates, and no Warrant Certificate shall be valid for any purpose unless so countersigned. In case any Authorized Officer of the Company that signed any of the Warrant Certificates ceases to be an Authorized Officer of the Company before countersignature by the Warrant Agent and issuance and delivery by the Company, such Warrant Certificates, nevertheless, may be countersigned by the Warrant Agent, issued and delivered with the same force and effect as though the person who signed such Warrant Certificates had not ceased to be such officer of the Company; and any Warrant Certificate may be signed on behalf of the Company by any person who, at the actual date of the execution of such Warrant Certificate, shall be an Authorized Officer of the Company authorized to sign such Warrant Certificate, although at the date of the execution of this Warrant Agreement any such person was not such an Authorized Officer.

2.2.5 Registration of Transfer. At any time at or prior to the Expiration Date (as defined below), a transfer of any Warrants may be registered and any Warrant Certificate or Warrant Certificates may be split up, combined or exchanged for another Warrant Certificate or Warrant Certificates evidencing the same number of Warrants as the Warrant Certificate or Warrant Certificates surrendered. Any Holder desiring to register the transfer of Warrants or to split up, combine or exchange any Warrant Certificate shall make such request in writing delivered to the Warrant Agent, and shall surrender to the Warrant Agent the Warrant Certificate or Warrant Certificates evidencing the Warrants the transfer of which is to be registered or that is or are to be split up, combined or exchanged. Thereupon, the Warrant Agent shall countersign and deliver to the person entitled thereto a Warrant Certificate or Warrant Certificates, as the case may be, as so requested. The Warrant Agent may require reasonable and customary payment, by the Holder requesting a registration of transfer of Warrants or a split-up, combination or exchange of a Warrant Certificate (but, for purposes of clarity, not upon the exercise of the Warrants and issuance of Warrant Shares to the Holder), of a sum sufficient to cover any tax or governmental charge that may be imposed in connection with such registration of transfer, split-up, combination or exchange, together with reimbursement to the Warrant Agent of all reasonable expenses incidental thereto.

2.2.6 Loss, Theft and Mutilation of Warrant Certificates. Upon receipt by the Company and the Warrant Agent of evidence reasonably satisfactory to them of the loss, theft, destruction or mutilation of a Warrant Certificate, and, in case of loss, theft or destruction, of indemnity or security in customary form and amount (which shall in no event include the posting of any bond by any institutional investor that holds a Definitive Certificate), and reimbursement to the Company and the Warrant Agent of all reasonable expenses incidental thereto, and upon surrender to the Warrant Agent and cancellation of the Warrant Certificate if mutilated, the Warrant Agent shall, on behalf of the Company, countersign and deliver a new Warrant Certificate of like tenor to the Holder in lieu of the Warrant Certificate so lost, stolen, destroyed or mutilated. The Warrant Agent may charge the Holder an administrative fee for processing the replacement of lost Warrant Certificates, which shall be charged only once in instances where a single surety bond obtained covers multiple certificates. The Warrant Agent may receive compensation from the surety companies or surety bond agents for administrative services provided to them.

2.2.7 Proxies. The Holder of a Warrant may grant proxies or otherwise authorize any person, including the Participants and beneficial holders that may own interests through the Participants, to take any action that a Holder is entitled to take under this Agreement or the Warrants; provided, however, that at all times that Warrants are evidenced by a Global Certificate, exercise of those Warrants shall be effected on their behalf by Participants through DTC in accordance with the procedures administered by DTC.

2.2.8 Warrant Certificate Request. A Holder has the right to elect at any time or from time to time a Warrant Exchange (as defined below) pursuant to a Warrant Certificate Request Notice (as defined below). Upon written notice by a Holder to the Warrant Agent for the exchange of some or all of such Holder's Global Warrants for a Definitive Certificate evidencing the same number of Warrants, which request shall be in the form attached hereto as Annex E (a "Warrant Certificate Request Notice") and the date of delivery of such Warrant Certificate Request Notice by the Holder, the "Warrant Certificate Request Notice Date" and the deemed surrender upon delivery by the Holder of a number of Global Warrants for the same number of Warrants evidenced by a Definitive Certificate, a "Warrant Exchange"), the Warrant Agent shall promptly effect the Warrant Exchange and shall promptly issue and deliver to the Holder a Definitive Certificate for such number of Warrants in the name set forth in the Warrant Certificate Request Notice. Such Definitive Certificate shall be dated the original issue date of the Warrants, shall be manually executed by an authorized signatory of the Company, shall be in the form attached hereto as Annex C, and shall be reasonably acceptable in all respects to such Holder. In connection with a Warrant Exchange, the Company agrees to deliver, or to direct the Warrant Agent to deliver, the Definitive Certificate to the Holder within three (3) Trading Days of the Warrant Certificate Request Notice pursuant to the delivery instructions in the Warrant Certificate Request Notice ("Warrant Certificate Delivery Date"). If the Company fails for any reason to deliver to the Holder the Definitive Certificate subject to the Warrant Certificate Request Notice by the Warrant Certificate Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares evidenced by such Definitive Certificate (based on the VWAP (as defined in the Warrants) of the Common Stock on the Warrant Certificate Request Notice Date), \$10 per Business Day for each Business Day after such Warrant Certificate Delivery Date until such Definitive Certificate is delivered or, prior to delivery of such Warrant Certificate, the Holder rescinds such Warrant Exchange. The Company covenants and agrees that, upon the date of delivery of the Warrant Certificate Request Notice, the Holder shall be deemed to be the holder of the Definitive Certificate and, notwithstanding anything to the contrary set forth herein, the Definitive Certificate shall be deemed for all purposes to contain all of the terms and conditions of the Warrants evidenced by such Warrant Certificate and the terms of this Agreement, other than Sections 3(c) and 9 herein, shall not apply to the Warrants evidenced by the Definitive Certificate.

2.2.9 Terms of the Warrant. The terms of the Warrants are set forth in the form of the Definitive Certificate attached hereto as Annex C, which form is incorporated by reference into this Warrant Agreement. If there is any discrepancy between any Section of this Warrant Agreement or the Global Certificate applicable to the Warrants and the form of Definitive Certificate attached hereto as Annex C, the form of Definitive Certificate shall govern and control.

3. Terms and Exercise of Warrants.

3.1 Exercise Price. Each Warrant shall entitle the Holder, subject to the provisions of the applicable Warrant Certificate and of this Warrant Agreement, to purchase from the Company the number of shares of Common Stock stated therein, at the price of \$[] per whole share, subject to the subsequent adjustments provided by Section 3 of the Warrant Certificate. The term "Exercise Price" as used in this Warrant Agreement refers to the price per share at which shares of Common Stock may be purchased at the time a Warrant is exercised.

3.2 Duration of Warrants. Warrants may be exercised only during the period ("Exercise Period") commencing on the Issuance Date and terminating at 5:00 P.M., New York City time (the "close of business") on [], 2025 ("Expiration Date"), unless the Expiration Date is not a Business Day, in which case the Expiration Date will be the next Business Day. Each Warrant not exercised on or before the Expiration Date shall become void, and all rights thereunder and all rights in respect thereof under this Warrant Agreement shall cease at the close of business on the Expiration Date.

3.3 Exercise of Warrants.

3.3.1 Exercise and Payment. Subject to the provisions of this Warrant Agreement, a Holder (or a Participant or a designee of a Participant acting on behalf of a Holder) may exercise the purchase rights represented by the Warrants, in whole or in part, at any time or times on or before the Expiration Date by delivering to the Warrant Agent, a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed as Annex B hereto (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 following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the 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 3.3.7 below is specified in the applicable Notice of Exercise. Notwithstanding any other provision in this Agreement, a holder whose interest in a Global Warrant is a beneficial interest in a Global Certificate held in book-entry form through the DTC (or another established clearing corporation performing similar functions), shall effect exercises by delivering to the DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, and complying with the procedures to effect exercise that are required by the DTC (or such other clearing corporation, as applicable). The Company acknowledges that the bank accounts maintained by the Warrant Agent in connection with the services provided under this Agreement will be in its name and that the Warrant Agent may receive investment earnings in connection with the investment at Warrant Agent risk and for its benefit of funds held in those accounts from time to time. Neither the Company nor the Holders will receive interest on any deposits or Exercise Price. The “Exercise Date” will be the first Business Day on which the materials in the foregoing sentence are received by the Warrant Agent (if by 5:00 P.M., New York City time), or the following Trading Day (if after 5:00 P.M., New York City time), regardless of any earlier date written on the materials. If the materials discussed in this Section 3.3.1 are received or deemed to be received after the Expiration Date, the exercise thereof will be null and void and any funds delivered to the Company will be returned to the Holder or Participant, as the case may be, as soon as practicable. In no event will interest accrue on any funds deposited with the Warrant Agent or the Company in respect of an exercise or attempted exercise of the Warrants.

3.3.2 Issuance of Warrant Shares.

(a) The Warrant Agent shall on the Trading Day following the Exercise Date of any Warrant, advise the Company, the transfer agent and registrar for the Company’s Common Stock, in respect of (i) the number of Warrant Shares indicated on the Notice of Exercise as issuable upon such exercise with respect to such exercised Warrants, (ii) the instructions of the Holder or Participant, as the case may be, provided to the Warrant Agent with respect to the delivery of the Warrant Shares and the number of Warrants that remain outstanding after such exercise and (iii) such other information as the Company or such transfer agent and registrar shall reasonably request.

(b) Upon the Warrant Agent’s receipt, at or prior to the close of business on the Expiration Date, of the executed Notice of Exercise, accompanied by payment of the Exercise Price pursuant to Section 2(b) of the Warrant Certificate (other than in the case of a Cashless Exercise), the Warrant Agent shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company 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 Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, 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 no later than the Warrant Share Delivery Date.

3.3.3 Valid Issuance. All Warrant Shares issued by the Company upon the proper exercise of a Warrant in conformity with this Warrant Agreement shall be validly issued, fully paid and non-assessable.

3.3.4 No Fractional Exercise. No fractional Warrant Shares will be issued upon the exercise of the Warrant. As to any fraction of a share which a Holder would otherwise be entitled to purchase upon such exercise, the Company shall round up to the nearest whole Warrant Share to be issued to such Holder.

3.3.5 Charges, Taxes, and Expenses. Issuance of Warrant Shares shall be made without charge to a 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 a Holder or in such name or names as may be directed by a Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of a Holder, the Warrant, when surrendered for exercise, shall be accompanied by the Assignment Form attached to the Warrant 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. 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.

3.3.6 Date of Issuance. The Company will treat an exercising Holder as a beneficial owner of the Warrant Shares as of the Exercise Date of any Warrant, except that, if such date is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the open of business on the next succeeding date on which the stock transfer books are open.

3.3.7 Restrictive Legend Events; Cashless Exercise Under Certain Circumstances.

(a) The Company shall use its reasonable best efforts to maintain the effectiveness of the Registration Statement and the current status of the prospectus included therein or to file and maintain the effectiveness of another registration statement and another current prospectus covering the Warrants and the Warrant Shares at any time that the Warrants are exercisable. The Company shall provide to the Warrant Agent and each Holder prompt written notice of any time that the Company is unable to deliver the Warrant Shares via DTC transfer or otherwise without restrictive legend because (A) the Commission has issued a stop order with respect to the Registration Statement, (B) the Commission otherwise has suspended or withdrawn the effectiveness of the Registration Statement, either temporarily or permanently, (C) the Company has suspended or withdrawn the effectiveness of the Registration Statement, either temporarily or permanently, (D) the prospectus contained in the Registration Statement is not available for the issuance of the Warrant Shares to the Holder or (E) otherwise (each a “Restrictive Legend Event”). To the extent that the Warrants cannot be exercised as a result of a Restrictive Legend Event or a Restrictive Legend Event occurs after a Holder has exercised Warrants in accordance with the terms of the Warrants but prior to the delivery of the Warrant Shares, the Company shall, at the election of the Holder, which shall be given within five (5) days of receipt of such notice of the Restrictive Legend Event, either (A) rescind the previously submitted Election to Purchase and the Company shall return all consideration paid by such Holder upon such rescission or (B) treat the attempted exercise as a cashless exercise as described in paragraph (b) below and refund the cash portion of the exercise price to the Holder.

(b) If a Restrictive Legend Event has occurred, the Warrant may be exercisable on a cashless basis pursuant to Section 2(c) of the Warrant Certificate. Notwithstanding anything herein to the contrary, the Company shall not be required to make any cash payments or net cash settlement to the Holder in lieu of delivery of the Warrant Shares. If the Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees 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 and the Company agrees not to take any position contrary thereto.

Upon receipt of a Notice of Exercise for a cashless exercise, the Warrant Agent will promptly deliver a copy of the Notice of Exercise to the Company to confirm the number of Warrant Shares issuable in connection with the cashless exercise. The Company shall promptly calculate and transmit to the Warrant Agent in a written notice, and the Warrant Agent shall have no duty, responsibility or obligation under this section to calculate, the number of Warrant Shares issuable in connection with any cashless exercise. The Warrant Agent shall be entitled to rely conclusively on any such written notice provided by the Company, and the Warrant Agent shall not be liable for any action taken, suffered or omitted to be taken by it in accordance with such written instructions or pursuant to this Warrant Agreement.

3.3.8 Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the number of Warrant Shares issuable in connection with any exercise, the Company shall promptly deliver to the Holder the number of Warrant Shares that are not disputed.

3.3.9 Beneficial Ownership Limitation. The Company and Warrant Agent shall not effect any exercise of a Warrant, and a Holder shall not have the right to exercise any portion of a Warrant, pursuant to Section 3 or otherwise, in contravention of the Beneficial Ownership Limitation set forth in Section 2(e) of the Warrant Certificate.

4. Adjustments. The Exercise Price, the number of Warrant Shares issuable upon exercise of each Warrant and the number of Warrants outstanding are subject to adjustment from time to time as provided in Section 3 of the Warrant Certificate. Upon every adjustment of the Exercise Price or the number of Warrant Shares issuable upon exercise of a Warrant, the Company shall give written notice thereof to the Warrant Agent, which notice shall state the Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of Warrant Shares purchasable at such price upon the exercise of a Warrant, setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Upon the occurrence of any event causing any such adjustment, the Company shall give written notice to each Holder, at the last address set forth for such holder in the Warrant Register, as of the record date or the effective date of the event. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such event. The Warrant Agent shall be entitled to rely conclusively on, and shall be fully protected in relying on, any certificate, notice or instructions provided by the Company with respect to any adjustment of the Exercise Price or the number of shares issuable upon exercise of a Warrant, or any related matter, and the Warrant Agent shall not be liable for any action taken, suffered or omitted to be taken by it in accordance with any such certificate, notice or instructions or pursuant to this Warrant Agreement. The Warrant Agent shall not be deemed to have knowledge of any such adjustment unless and until it shall have received written notice thereof from the Company.

5. Restrictive Legends; Fractional Warrants. In the event that a Warrant Certificate surrendered for transfer bears a restrictive legend, the Warrant Agent shall not register that transfer until the Warrant Agent has received an opinion of counsel for the Company stating that such transfer may be made and indicating whether the Warrants must also bear a restrictive legend upon that transfer. The Company and the Warrant Agent shall not issue fractions of Warrants or distribute a Global Warrant or Warrant Certificates that evidence fractional Warrants. Whenever any fractional Warrant would otherwise be required to be issued or distributed, the actual issuance or distribution shall reflect a rounding of such fraction up to the nearest whole Warrant. The Warrant Agent shall not be required to effect any registration of transfer or exchange which will result in the transfer of or delivery of a Warrant Certificate for a fraction of a Warrant.

6. Other Provisions Relating to Rights of Holders of Warrants.

6.1 No Rights as Stockholder. Except as otherwise specifically provided herein and in accordance with Section 5(a) of the Warrant Certificate, a Holder, solely in its capacity as a holder of Warrants, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant Agreement be construed to confer upon a Holder, solely in its capacity as the registered holder of Warrants, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of share capital, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights or rights to participate in new issues of shares, or otherwise, prior to the issuance to the Holder of the Warrant Shares which it is then entitled to receive upon the due exercise of Warrants.

6.2 Reservation of Common Stock. The Company shall at all times reserve and keep available a number of its authorized but unissued shares of Common Stock pursuant to Section 5(d) of the Warrant Certificate.

7. Concerning the Warrant Agent and Other Matters.

7.1 Any instructions given to the Warrant Agent orally, as permitted by any provision of this Warrant Agreement, shall be confirmed in writing by the Company as soon as practicable. The Warrant Agent shall not be liable or responsible and shall be fully authorized and protected for acting, or failing to act, in accordance with any oral instructions which do not conform with the written confirmation received in accordance with this Section 7.1

7.2 (a) Whether or not any Warrants are exercised, for the Warrant Agent's services as agent for the Company hereunder, the Company shall pay to the Warrant Agent such fees as may be separately agreed between the Company and Warrant Agent and the Warrant Agent's out of pocket expenses in connection with this Warrant Agreement, including, without limitation, the reasonable fees and expenses of the Warrant Agent's counsel. While the Warrant Agent endeavors to maintain out-of-pocket charges (both internal and external) at competitive rates, these charges may not reflect actual out-of-pocket costs, and may include handling charges to cover internal processing and use of the Warrant Agent's billing systems. (b) All amounts owed by the Company to the Warrant Agent under this Warrant Agreement are due within 30 days of the Company's receipt of an invoice. Delinquent payments are subject to a late payment charge of one and one-half percent (1.5%) per month commencing 45 days from the invoice date. The Company agrees to reimburse the Warrant Agent for any reasonable attorney's fees and any other costs associated with collecting delinquent payments. (c) No provision of this Warrant Agreement shall require Warrant Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties under this Warrant Agreement or in the exercise of its rights.

7.3 As agent for the Company hereunder the Warrant Agent: (a) shall have no duties or obligations other than those specifically set forth herein or as may subsequently be agreed to in writing by the Warrant Agent and the Company; (b) shall be regarded as making no representations and having no responsibilities as to the validity, sufficiency, value, or genuineness of the Warrants or any Warrant Shares; (c) shall not be obligated to take any legal action hereunder; if, however, the Warrant Agent determines to take any legal action hereunder, and where the taking of such action might, in its judgment, subject or expose it to any expense or liability it shall not be required to act unless it has been furnished with an indemnity reasonably satisfactory to it; (d) may rely on and shall be fully authorized and protected in acting or failing to act upon any certificate, instrument, opinion, notice, letter, telegram, telex, facsimile transmission or other document or security delivered to the Warrant Agent and believed by it to be genuine and to have been signed by the proper party or parties; (e) shall not be liable or responsible for any recital or statement contained in the Registration Statement or any other documents relating thereto; (f) shall not be liable or responsible for any failure on the part of the Company to comply with any of its covenants and obligations relating to the Warrants, including without limitation obligations under applicable securities laws; (g) may rely on and shall be fully authorized and protected in acting or failing to act upon the written, telephonic or oral instructions with respect to any matter relating to its duties as Warrant Agent covered by this Warrant Agreement (or supplementing or qualifying any such actions) of officers of the Company, and is hereby authorized and directed to accept instructions with respect to the performance of its duties hereunder from the Company or counsel to the Company, and may apply to the Company, for advice or instructions in connection with the Warrant Agent's duties hereunder, and the Warrant Agent shall not be liable for any delay in acting while waiting for those instructions; any applications by the Warrant Agent for written instructions from the Company may, at the option of the Agent, set forth in writing any action proposed to be taken or omitted by the Warrant Agent under this Warrant Agreement and the date on or after which such action shall be taken or such omission shall be effective; the Warrant Agent shall not be liable for any action taken by, or omission of, the Warrant Agent in accordance with a proposal included in such application on or after the date specified in such application (which date shall not be less than five business days after the date such application is sent to the Company, unless the Company shall have consented in writing to any earlier date) unless prior to taking any such action, the Warrant Agent shall have received written instructions in response to such application specifying the action to be taken or omitted; (h) may consult with counsel satisfactory to the Warrant Agent, including its in-house counsel, and the advice of such counsel shall be full and complete authorization and protection in respect of any action taken, suffered, or omitted by it hereunder in good faith and in accordance with the advice of such counsel; (i) may perform any of its duties hereunder either directly or by or through nominees, correspondents, designees, or subagents, and it shall not be liable or responsible for any misconduct or negligence on the part of any nominee, correspondent, designee, or subagent appointed with reasonable care by it in connection with this Warrant Agreement; (j) is not authorized, and shall have no obligation, to pay any brokers, dealers, or soliciting fees to any person; and (k) shall not be required hereunder to comply with the laws or regulations of any country other than the United States of America or any political subdivision thereof.

7.4 (a) In the absence of gross negligence or willful or illegal misconduct on its part, the Warrant Agent shall not be liable for any action taken, suffered, or omitted by it or for any error of judgment made by it in the performance of its duties under this Warrant Agreement. Anything in this Warrant Agreement to the contrary notwithstanding, in no event shall Warrant Agent be liable for special, indirect, incidental, consequential or punitive losses or damages of any kind whatsoever (including but not limited to lost profits), even if the Warrant Agent has been advised of the possibility of such losses or damages and regardless of the form of action. Any liability of the Warrant Agent will be limited in the aggregate to the amount of fees paid by the Company hereunder. The Warrant Agent shall not be liable for any failures, delays or losses, arising directly or indirectly out of conditions beyond its reasonable control including, but not limited to, acts of government, exchange or market ruling, suspension of trading, work stoppages or labor disputes, fires, civil disobedience, riots, rebellions, storms, electrical or mechanical failure, computer hardware or software failure, communications facilities failures including telephone failure, war, terrorism, insurrection, earthquakes, floods, acts of God or similar occurrences. (b) In the event any question or dispute arises with respect to the proper interpretation of the Warrants or the Warrant Agent's duties under this Warrant Agreement or the rights of the Company or of any Holder, the Warrant Agent shall not be required to act and shall not be held liable or responsible for its refusal to act until the question or dispute has been judicially settled (and, if appropriate, it may file a suit in interpleader or for a declaratory judgment for such purpose) by final judgment rendered by a court of competent jurisdiction, binding on all persons interested in the matter which is no longer subject to review or appeal, or settled by a written document in form and substance satisfactory to Warrant Agent and executed by the Company and each such Holder. In addition, the Warrant Agent may require for such purpose, but shall not be obligated to require, the execution of such written settlement by all the Holders and all other persons that may have an interest in the settlement.

7.5 The Company covenants to indemnify the Warrant Agent and hold it harmless from and against any loss, liability, claim or expense ("Loss") arising out of or in connection with the Warrant Agent's duties under this Warrant Agreement, including the costs and expenses of defending itself against any Loss, unless such Loss shall have been determined by a court of competent jurisdiction to be a result of the Warrant Agent's gross negligence or willful misconduct.

7.6 Unless terminated earlier by the parties hereto, this Agreement shall terminate 90 days after the earlier of the Expiration Date and the date on which no Warrants remain outstanding (the "Termination Date"). On the business day following the Termination Date, the Agent shall deliver to the Company any entitlements, if any, held by the Warrant Agent under this Warrant Agreement. The Agent's right to be reimbursed for fees, charges and out-of-pocket expenses as provided in this Section 7 shall survive the termination of this Warrant Agreement.

7.7 If any provision of this Warrant Agreement shall be held illegal, invalid, or unenforceable by any court, this Warrant Agreement shall be construed and enforced as if such provision had not been contained herein and shall be deemed an Agreement among the parties to it to the full extent permitted by applicable law.

7.8 The Company represents and warrants that: (a) it is duly incorporated and validly existing under the laws of its jurisdiction of incorporation; (b) the offer and sale of the Warrants and the execution, delivery and performance of all transactions contemplated thereby (including this Warrant Agreement) have been duly authorized by all necessary corporate action and will not result in a breach of or constitute a default under the articles of association, bylaws or any similar document of the Company or any indenture, agreement or instrument to which it is a party or is bound; (c) this Warrant Agreement has been duly executed and delivered by the Company and constitutes the legal, valid, binding and enforceable obligation of the Company; (d) the Warrants will comply in all material respects with all applicable requirements of law; and (e) to the best of its knowledge, there is no litigation pending or threatened as of the date hereof in connection with the offering of the Warrants.

7.9 In the event of inconsistency between this Warrant Agreement and the descriptions in the Registration Statement, as they may from time to time be amended, the terms of this Warrant Agreement shall control.

7.10 Set forth in Annex D hereto is a list of the names and specimen signatures of the persons authorized to act for the Company under this Warrant Agreement (the "Authorized Representatives"). The Company shall, from time to time, certify to you the names and signatures of any other persons authorized to act for the Company under this Warrant Agreement.

7.11 Except as expressly set forth elsewhere in this Warrant Agreement, all notices, instructions and communications under this Agreement shall be in writing, shall be effective upon receipt and shall be addressed, if to the Company, at 2804 Orchard Lake Rd., Suite 202, Keego Harbor, Michigan 48320, Attention: Philip Rice, E-mail: [*], or, if to the Warrant Agent, to Direct Transfer LLC, One Glenwood Avenue, Suite 1001, Raleigh, NC, 27603, Attention: David Klimczak, E-mail: [*] or to such other address of which a party hereto has notified the other party.

7.12 (a) This Warrant Agreement shall be governed by and construed in accordance with the laws of the State of New York. All actions and proceedings relating to or arising from, directly or indirectly, this Warrant Agreement may be litigated in courts located within the State of North Carolina. The Company hereby submits to the personal jurisdiction of such courts and consents that any service of process may be made by certified or registered mail, return receipt requested, directed to the Company at its address last specified for notices hereunder. Each of the parties hereto hereby waives the right to a trial by jury in any action or proceeding arising out of or relating to this Warrant Agreement. (b) This Warrant Agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto. This Warrant Agreement may not be assigned, or otherwise transferred, in whole or in part, by either party without the prior written consent of the other party, which the other party will not unreasonably withhold, condition or delay; except that (i) consent is not required for an assignment or delegation of duties by Warrant Agent to any affiliate of Warrant Agent and (ii) any reorganization, merger, consolidation, sale of assets or other form of business combination by Warrant Agent or the Company shall not be deemed to constitute an assignment of this Warrant Agreement. (c) No provision of this Warrant Agreement may be amended, modified or waived, except in a written document signed by both parties. The Company and the Warrant Agent may amend or supplement this Warrant Agreement without the consent of any Holder for the purpose of curing any ambiguity, or curing, correcting or supplementing any defective provision contained herein or adding or changing any other provisions with respect to matters or questions arising under this Agreement as the parties may deem necessary or desirable and that the parties determine, in good faith, shall not adversely affect the interest of the Holders. All other amendments and supplements shall require the vote or written consent of Holders of at least 50.1% of the then outstanding Warrants, provided that adjustments may be made to the Warrant terms and rights in accordance with Section 4 without the consent of the Holders.

7.13 Payment of Taxes. The Company will from time to time promptly pay all taxes and charges that may be imposed upon the Company or the Warrant Agent in respect of the issuance or delivery of Warrant Shares upon the exercise of Warrants, but the Company may, pursuant to the terms of the Warrant, require the Holders to pay any transfer taxes in respect of the Warrants or such shares. The Warrant Agent may refrain from registering any transfer of Warrants or any delivery of any Warrant Shares unless or until the persons requesting the registration or issuance shall have paid to the Warrant Agent for the account of the Company the amount of such tax or charge, if any, or shall have established to the reasonable satisfaction of the Company and the Warrant Agent that such tax or charge, if any, has been paid.

7.14 Resignation of Warrant Agent.

7.14.1 Appointment of Successor Warrant Agent. The Warrant Agent, or any successor to it hereafter appointed, may resign its duties and be discharged from all further duties and liabilities hereunder after giving thirty (30) days' notice in writing to the Company and the Holders of the Warrants, or such shorter period of time agreed to by the Company. The Company may terminate the services of the Warrant Agent, or any successor Warrant Agent, after giving thirty (30) days' notice in writing to the Warrant Agent or successor Warrant Agent and the Holders of the Warrants, or such shorter period of time as agreed. If the office of the Warrant Agent becomes vacant by resignation, termination or incapacity to act or otherwise, the Company shall appoint in writing a successor Warrant Agent in place of the Warrant Agent. If the Company shall fail to make such appointment within a period of 30 days after it has been notified in writing of such resignation or incapacity by the Warrant Agent, then the Warrant Agent or any Holder may apply to any court of competent jurisdiction for the appointment of a successor Warrant Agent at the Company's cost. Pending appointment of a successor to such Warrant Agent, either by the Company or by such a court, the duties of the Warrant Agent shall be carried out by the Company. Any successor Warrant Agent (but not including the initial Warrant Agent), whether appointed by the Company or by such court, shall be a person organized and existing under the laws of any state of the United States of America, in good standing, and authorized under such laws to exercise corporate trust powers and subject to supervision or examination by federal or state authority. After appointment, any successor Warrant Agent shall be vested with all the authority, powers, rights, immunities, duties, and obligations of its predecessor Warrant Agent with like effect as if originally named as Warrant Agent hereunder, without any further act or deed, and except for executing and delivering documents as provided in the sentence that follows, the predecessor Warrant Agent shall have no further duties, obligations, responsibilities or liabilities hereunder, but shall be entitled to all rights that survive the termination of this Warrant Agreement and the resignation or removal of the Warrant Agent, including but not limited to its right to indemnity hereunder. If for any reason it becomes necessary or appropriate or at the request of the Company, the predecessor Warrant Agent shall execute and deliver, at the expense of the Company, an instrument transferring to such successor Warrant Agent all the authority, powers, and rights of such predecessor Warrant Agent hereunder; and upon request of any successor Warrant Agent the Company shall make, execute, acknowledge, and deliver any and all instruments in writing for more fully and effectually vesting in and confirming to such successor Warrant Agent all such authority, powers, rights, immunities, duties, and obligations.

7.14.2 Notice of Successor Warrant Agent. In the event a successor Warrant Agent shall be appointed, the Company shall give notice thereof to the predecessor Warrant Agent and the transfer agent for the Common Stock not later than the effective date of any such appointment.

7.14.3 Merger or Consolidation of Warrant Agent. Any person into which the Warrant Agent may be merged or converted or with which it may be consolidated or any person resulting from any merger, conversion or consolidation to which the Warrant Agent shall be a party or any person succeeding to the shareowner services business of the Warrant Agent or any successor Warrant Agent shall be the successor Warrant Agent under this Warrant Agreement, without any further act or deed. For purposes of this Warrant Agreement, "person" shall mean any individual, firm, corporation, partnership, limited liability company, joint venture, association, trust or other entity, and shall include any successor (by merger or otherwise) thereof or thereto.

8. Miscellaneous Provisions.

8.1 Persons Having Rights under this Warrant Agreement. Nothing in this Warrant Agreement expressed and nothing that may be implied from any of the provisions hereof is intended, or shall be construed, to confer upon, or give to, any person or corporation other than the parties hereto and the Holders any right, remedy, or claim under or by reason of this Warrant Agreement or of any covenant, condition, stipulation, promise, or agreement hereof.

8.2 Examination of the Warrant Agreement. A copy of this Warrant Agreement shall be available at all reasonable times at the office of the Warrant Agent designated for such purpose for inspection by any Holder. Prior to such inspection, the Warrant Agent may require any such holder to provide reasonable evidence of its interest in the Warrants.

8.3 Counterparts. This Warrant Agreement may be executed in any number of original, facsimile or electronic counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

8.4 Effect of Headings. The Section headings herein are for convenience only and are not part of this Warrant Agreement and shall not affect the interpretation thereof.

9. Certain Definitions. As used herein, the following terms shall have the following meanings:

(a) "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 that banks shall not be deemed to be authorized or obligated to be closed due to a "shelter in place," "non-essential employee" or similar closure of physical branch locations at the direction of any governmental authority if such banks' electronic funds transfer systems (including for wire transfers) are open for use by customers on such day.

(b) "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.

(c) "Trading Day" means any day on which the Common Stock is traded on the Trading Market.

(d) "Trading Market" means any of the following markets or exchanges on which the Common Stock is 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).

(e) "Warrant Share Delivery Date" means the date that is the earliest of: (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise, all subject to receipt of any cash payments required by the Holder.

[Signature Page to Follow]

IN WITNESS WHEREOF, this Warrant Agent Agreement has been duly executed by the parties hereto as of the day and year first above written.

ZIVO BIOSCIENCE, INC.

By: _____
Name: _____
Title: _____

DIRECT TRANSFER LLC

By: _____
Name: _____
Title: _____

Annex A - Form of Global Certificate

Annex B – Notice of Exercise

Annex C - Form of Certificated Warrant

Annex D - Authorized Representatives

Annex E - Form of Warrant Certificate Request Notice

[Signature Page—Warrant Agent Agreement

ZIVO Bioscience, Inc.]

ANNEX A

[FORM OF GLOBAL CERTIFICATE]

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO ISSUER OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE, OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

ZIVO BIOSCIENCE, INC.
GLOBAL WARRANT CERTIFICATE
NOT EXERCISABLE AFTER [____], 2025

This certifies that the person whose name and address appears below, or registered assigns, is the registered owner of the number of Warrants set forth below. Each Warrant entitles its registered holder to purchase from ZIVO BIOSCIENCE, INC., a Nevada corporation (the “**Company**”), at any time prior to 5:00 P.M. (New York City time) on [____], 2025 (the “**Expiration Date**”) (unless such date is not a Business Day, in which case the Expiration Date will be the next Business Day), one share of common stock, par value \$0.001 per share, of the Company (each, a “**Warrant Share**” and collectively, the “**Warrant Shares**”), at an exercise price of \$[] per share, subject to possible adjustments as provided in the Warrant Agreement (as defined below).

This Warrant Certificate, with or without other Warrant Certificates, upon surrender at the designated office of the Warrant Agent, may be exchanged for another Warrant Certificate or Warrant Certificates evidencing the same number of Warrants as the Warrant Certificate or Warrant Certificates surrendered. A transfer of the Warrants evidenced hereby may be registered upon surrender of this Warrant Certificate at the designated office of the Warrant Agent by the registered holder in person or by a duly authorized attorney, properly endorsed or accompanied by proper instruments of transfer, a signature guarantee, and such other and further documentation as the Warrant Agent may reasonably request and duly stamped as may be required by the laws of the State of New York and of the United States of America.

The terms and conditions of the Warrants and the rights and obligations of the holder of this Warrant Certificate are set forth in the Warrant Agent Agreement dated as of [____], 2020, including, but not limited to, the terms set forth in the Definitive Certificate in the form attached thereto as Annex C (the “**Warrant Agreement**”) by and between the Company and Direct Transfer LLC (the “**Warrant Agent**”). A copy of the Warrant Agreement is available for inspection during business hours at the office of the Warrant Agent.

This Warrant Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by an authorized signatory of the Warrant Agent.

WITNESS the facsimile signature of a proper officer of the Company.

ZIVO BIOSCIENCE, INC.

By: _____
Name: _____
Title: _____

Dated: [____], 2020

Countersigned:

DIRECT TRANSFER LLC
as Warrant Agent

By:
Name:
Title:

PLEASE _____ DETACH _____ HERE

Certificate No.: 1_ Number of Warrants

WARRANT CUSIP NO.: [_____]

DIRECT TRANSFER LLC

Cede & Co.

By Mail:

One Glenwood Avenue, Suite 1001
Raleigh, NC, 27603

By hand or overnight courier:

Annex A

ANNEX B

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: _____

Annex B

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form 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: _____

[Signature Guarantee]

Signatures must be guaranteed by an "eligible guarantor institution" meeting the requirements of the Warrant Agent, which requirements include membership or participation in the Security Transfer Agent Medallion Program ("STAMP") or such other "signature guarantee program" as may be determined by the Warrant Agent in addition to, or in substitution for, STAMP, all in accordance with the Securities Exchange Act of 1934, as amended.

Annex B

ANNEX C
FORM OF CERTIFICATED WARRANT
COMMON STOCK PURCHASE WARRANT
ZIVO BIOSCIENCE, INC.

Warrant Shares: _____

Initial Exercise Date: [] [], 2020
Issue Date: [] [], 2020

Annex C

ANNEX D

AUTHORIZED REPRESENTATIVES

<u>Name</u>	<u>Title</u>	<u>Signature</u>
Andrew Dahl	Chief Executive Officer	
Philip M. Rice II	Chief Financial Officer	

Annex D

ANNEX E

Form of Warrant Certificate Request Notice

WARRANT CERTIFICATE REQUEST NOTICE

To: Direct Transfer LLC, as Warrant Agent for ZIVO Bioscience, Inc. (the "Company")

The undersigned Holder of Common Stock Purchase Warrants ("Warrants") in the form of Global Warrants issued by the Company hereby elects to receive a Definitive Certificate evidencing the Warrants held by the Holder as specified below:

1. Name of Holder of Warrants in form of Global Warrants:

2. Name of Holder in Definitive Certificate (if different from name of Holder of Warrants in form of Global Warrants):

3. Number of Warrants in name of Holder in form of Global Warrants:

4. Number of Warrants for which Definitive Certificate shall be issued:

5. Number of Warrants in name of Holder in form of Global Warrants after issuance of Definitive Certificate, if any:

6. Definitive Certificate shall be delivered to the following address:

The undersigned hereby acknowledges and agrees that, in connection with this Warrant Exchange and the issuance of the Definitive Certificate, the Holder is deemed to have surrendered the number of Warrants in form of Global Warrants in the name of the Holder equal to the number of Warrants evidenced by the Definitive Certificate.

Annex E

[SIGNATURE OF HOLDER]

Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date: _____

Annex E

SUPPLY CHAIN CONSULTING AGREEMENT

THIS SUPPLY CHAIN CONSULTING AGREEMENT (the "Agreement") is made and entered into as of February 27, 2019 (the "Effective Date") by and between ZIVO BIOSCIENCE, INC., a Nevada corporation (the "Company"), and AEGLE PARTNERS 2 LLC, a Michigan limited liability company ("Consultant").

RECITALS

A. The Company's business model is to generate income from licensing and/or selling natural bioactive ingredients or dried algal biomass derived from the Company's algae cultures.

B. Julian Leese of Consultant has conducted extensive commercial transactions and project financing throughout the world and has developed business relationships and governmental contacts that may benefit the Company.

C. The Company desires to engage Consultant to make Julian Leese available to perform certain services for and on behalf of the Company in accordance with the terms of this Agreement.

NOW, THEREFORE, for and in consideration of the foregoing Recital, the mutual covenants, agreements and undertakings set forth below, and other good and valuable consideration, the receipt and adequacy of which are acknowledged, the undersigned agree as follows:

1. CONSULTING ARRANGEMENT.

- (a) **Scope.** The Company hereby engages Consultant to perform during the Term (defined below), for and on behalf of the Company, the following services (collectively, the "Services"): (a) assisting the Company in identifying, and negotiating the terms of potential joint-ventures involving algae production development projects or related transactions or business combinations ("Development Projects") outside of the United States, and as more specifically described on the attached Exhibit A; (b) providing advice for the Company's long-term business strategy and the Company's day-to-day operations; and (c) such other services as may be mutually agreed by the Company and Consultant. This Agreement shall be subject to approval by the Company Board of Directors no later than March 1, 2019.
 - (b) **Standard of Performance.** Consultant shall perform the Services in full compliance with all applicable laws, rules and regulations, and Consultant shall take no action nor fail to take any action as a result of which the Company is in violation of any applicable United States or foreign law, rule or regulation.
 - (c) **Exclusive Arrangement.** During the Term, Consultant shall have the exclusive right to identify Development Projects for the Company in the following regions: Southeast Asia; Oceania; Indian subcontinent; Africa, with regions in the Middle East by mutual agreement; and specifically exclusive of North and South America, except by specific prior mutual agreement (the "Territory"). The Company, directly or indirectly through one or more consultants, shall have the right to identify Development Projects anywhere outside of the Territory, including anywhere in the United States of America.
 - (d) **Terms of any Development Project.** Notwithstanding anything to the contrary herein, the terms and conditions of any Development Project shall be acceptable to the Company in its sole and absolute discretion and meet all standards and requirements of the Company as communicated from time to time.
 - (e) **Term.** The term of the Company's engagement of Consultant under this Agreement (the "Term") shall commence on the Effective Date and shall continue until terminated by either party for any reason (or no reason whatsoever) on not less than five (5) days' prior written notice; provided, however, that upon and after the successful closing of a Development Project, the termination of this Agreement by the Company without cause shall not affect the Company's obligation to make the payments required in Section 2 below.
-

2. **COMPENSATION.**

- (a) **Fees.** The Company shall pay Consultant Twenty-Five Thousand Dollars (\$25,000.00) upon the execution of this Agreement and the Company shall pay Consultant an additional Twenty-Five Thousand Dollars (\$25,000.00) on or before the date six (6) weeks after the Effective Date (the “**Start-Up Fees**”). In addition, within ten (10) days after a closing a Development Project, the Company shall pay Consultant Three Hundred Thousand Dollars (\$300,000.00). Following the closing of a Development Project, the Company shall also pay Consultant an on-going monthly fee of Twenty-Five Thousand Dollars (\$25,000.00) on the first day of each month during the next twenty-four (24) months of the Term. For purposes hereof, the “closing of a Development Project” means the date that as a result of Consultant’s efforts on behalf of the Company, the Company is able, financially and otherwise, to proceed with engineering and construction of algae production facilities, processing or warehousing facilities and supply chain development, or related business combinations rendering an equivalent outcome (in the reasonable determination of the Company), for the production, processing, transport, compliance, marketing and resale of its proprietary algae biomass.
- (b) **Warrants for Common Stock.** Within ten (10) days after the closing of a Development Project, the Company shall issue to Consultant a cashless warrant with a five-year term to purchase eighteen million (18,000,000) shares of the Company’s common stock at an exercise price of \$0.10 per share. The number of shares issued subject to the warrant and the exercise price shall be adjusted by the Company in the event of any stock split, recapitalization, merger or other event affecting the capitalization of the Company so that Consultant is entitled upon the exercise of the warrant to the same pro-rata percentage of shares at the time of the stock issue as that represented by the warrant prior to the event requiring the adjustment. In no event shall Consultant be entitled to more than one such warrant under this Agreement, regardless of how many closings of Development Projects or other similar events occur.
- (c) **Commissions.** With respect to transactions which carry a margin to the Company of at least 15%, the Company shall pay Consultant during the term of this Agreement a 4% (four percent) commission on: (i) the revenue received on the sale of any algal biomass or processed product to an entity that was identified and cultivated by Consultant, and (ii) on the revenue received from the licensing of extracts or isolates of ZIVO proprietary algal strains by any entity identified and cultivated by Consultant, in each case resulting in a contract or revenue event as a result of Consultant’s efforts. With respect to transactions which carry a margin of less than 15%, the Commission shall be \$800 per ton of algal biomass or processed product or an equitable amount determined by the Company if a per ton measure is not applicable.
- (d) **Independent Contractor Status.** Any provision of this Agreement to the contrary notwithstanding, Consultant shall perform its duties and obligations under this Agreement as an independent contractor. The Company shall not, and shall not be obligated to, withhold any federal, state or local withholding taxes from any consideration which the Company pays or provides to, on behalf of, or in respect of Consultant, nor shall the Company pay any Social Security taxes, pay any unemployment insurance or workers’ compensation insurance or make any other contributions or withhold any other amounts which are generally required of an employer in an employer/employee relationship. Consultant shall be solely responsible for paying or withholding the same. Consultant shall be solely responsible for paying all taxes, and it covenants and agrees to pay such taxes timely and to report all revenue derived from the Company in a manner consistent with the independent contractor relationship set forth in this Agreement. **Consultant acknowledges and agrees that it shall have no authority whatsoever to bind or otherwise obligate the Company in any agreement, letter of intent, lease or in any other manner, except as expressly authorized by an authorized representative of the Company in writing.**
- (e) **Business Expenses.** The Company shall reimburse Consultant for all reasonable business expenses actually incurred by it in connection with the performance of the Services under this Agreement; provided, however, that in no event shall Consultant incur any single expense in excess of Five Hundred Dollars (\$500.00) without the prior written approval of the Company. Any reimbursement pursuant to this Section 2(e) shall occur in accordance with the Company’s reimbursement policy as in effect from time to time. Consultant shall furnish such documentation with respect to any expense reimbursements pursuant to this Section 2(e) as the Company may reasonably request.
- (f) **Termination.** Except as provided in Section 1(e), above, upon the termination of this Agreement, Consultant shall only be entitled to any earned but unpaid compensation hereunder accruing on or before the date of termination.
- (g) **Consideration.** Except as otherwise specified above, no fees or other amounts shall be payable by either party to the other party, and each shall be solely responsible for his own costs incurred in performing his obligations, hereunder, it being acknowledged and agreed that each party’s undertakings and performance hereunder provides full and satisfactory consideration for the other party’s undertakings and performance.

3. **CONFIDENTIALITY.**

- (a) Consultant acknowledges that by reason of Consultant's duties to and association with the Company Consultant has had and will have access to and has and will become informed of Confidential Information (as defined below) which is a competitive asset of the Company. Consultant agrees to keep in strict confidence and not, directly or indirectly, make known, disclose, furnish, make available or use, any Confidential Information during or after the Term, except for use in Consultant's regular authorized duties on behalf of the Company. Consultant acknowledges that all documents and other property including or reflecting Confidential Information furnished to Consultant by the Company or otherwise acquired or developed by Consultant during the Term shall at all times be the property of the Company. Consultant shall take all reasonable and appropriate steps to safeguard Confidential Information and protect it against disclosure, misappropriation, misuse, loss and theft. Consultant shall deliver to the Company, at termination of this Agreement and at any other time the Company may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof, including any of the foregoing in electronic form) relating to the Confidential Information or the business of the Company which Consultant may then possess or have under Consultant's control.
- (b) The parties intend that the covenants set forth in this Section 3 shall be a series of separate covenants with respect to the Company's business, one for each and every state and county of the United States. If any court determines that any covenant set forth in Section 3, or any portion of any such covenant, is invalid or unenforceable, the remainder of the covenants set forth in this Section 3 shall not be affected and shall be given full force and effect, without regard to the invalid covenant or the invalid portion. If any court determines that any covenant set forth in this Section 3, or any portion of any such covenant, is unenforceable because of its duration or geographic scope, such court shall have the power to reduce such duration or scope, as the case may be, and to enforce such covenant or portion in such reduced form. The parties intend to and hereby confer jurisdiction to enforce the covenants set forth in this Section 3 on the courts of any jurisdiction within the geographical scope of such covenants. If the courts of any one or more of such jurisdictions hold the covenants set forth in this Section 3, or any portion of any such covenant, unenforceable by reason of the breadth of such scope or otherwise, it is the parties' intention that such determination not bar or in any way affect the right of the Company to the relief provided above in the courts of any other jurisdiction within the geographical scope of such covenants as to breaches of such covenants in such other respective jurisdictions.
- (c) The parties covenant and agree that in the event of a breach or attempted breach of any of the covenants set forth in this Section 3, in addition to any and all legal and equitable remedies immediately available, such covenants may be enforced by a temporary and/or permanent injunction in an action in equity. The parties acknowledge that the remedy at law for a breach or threatened breach of any of the covenants set forth in this Section 3 above would be inadequate. Notwithstanding the foregoing, the Company may not offset or reduce the Consulting Fee by any damages arising under this Section 3.
- (d) For purposes hereof, "Confidential Information" means all information of a confidential or proprietary nature (whether or not specifically labeled or identified as "confidential"), in any form or medium, that is or was disclosed to, or developed or learned by, Consultant in connection with Consultant's relationship with the Company prior to the date hereof or during Consultant's relationship with the Company and that relates to the business, products, services, financing, research or development of the Company or its suppliers, distributors or customers. Confidential Information includes, but is not limited to, the following: (i) internal business information (including financial information and information relating to strategic and staffing plans and practices, business, training, marketing, promotional and sales plans and practices, cost, rate and pricing structures, accounting and business methods); (ii) identities of, individual requirements of, specific contractual arrangements with, and information about, any of the Company's suppliers, distributors and customers and their confidential information; (iii) trade secrets, know-how, compilations of data and analyses, techniques, systems, formulae, research, records, reports, manuals, documentation, models, data and data bases relating thereto; and (iv) inventions, innovations, improvements, developments, methods, designs, analyses, drawings, reports and all similar or related information (whether or not patentable). Confidential Information shall not include information that: (1) is or becomes publicly known through no wrongful act or breach of obligation of confidentiality; (2) was rightfully received by Consultant from a third party without a breach of any obligation of confidentiality by such third party; (3) was known to Consultant prior to Consultant's relationship with the Company; or (4) is required to be disclosed pursuant to any applicable law or court order.

4. MISCELLANEOUS.

- (a) **Notices.** Any notice, demand, request or other communication which is permitted, required or desired to be given in connection with this Agreement or Consultant's engagement by the Company as a consultant must be in writing and shall be deemed to be duly given when (i) personally delivered, (ii) deposited in the United States mail, certified or registered, return receipt requested, postage prepaid, addressed to the parties at the following addresses (or at such other address as shall be given in writing to the parties to this Agreement or their permitted successors or assigns), or (iii) emailed to the parties at the following email addresses (or at such other email addresses as shall be given in writing to the parties to this Agreement or their permitted successors or assigns), with a hard copy to follow in the manner contemplated in either clause (i) or (ii) above, as follows:

If to the Company:

Zivo Bioscience, Inc.
2804 Orchard Lake Road
Keego Harbor, Michigan 48320
Email: price@zivobioscience.com
Attn: Philip Rice, Chief Financial Officer

If to Consultant:

Aegle Partners 2 LLC

Email: _____
Attn: _____

- (b) **Agreement Binding.** The terms and conditions of this Agreement shall be binding on and inure to the benefit of the Company, Consultant and their respective heirs, executors, administrators, personal representatives, successors and permitted assigns, as the case may be. This Agreement may not be assigned by Consultant without the prior written consent of the Company, which consent may be withheld in its sole and absolute discretion.
- (c) **Choice of Law.** This Agreement has been executed in, and shall be construed and enforced in accordance with, the laws of the State of Michigan, without giving effect to the conflict of laws principles of such State. **Each of the parties hereto knowingly, voluntarily and intentionally waives any rights it may have to a trial by jury in respect of any litigation based hereon, or arising out of, under, or in connection with, this Agreement.**
- (d) **Attorneys' Fees.** If the Company defaults in its obligations under this Agreement and this Agreement is enforced by or through an attorney, the Company shall pay all reasonable out-of-pocket costs of enforcement and collection, including, but not limited to reasonable out-of-pocket attorney's fees.
- (e) **Dispute Resolution.** Any disagreement, dispute, or controversy concerning this Agreement, shall be resolved exclusively by binding arbitration in Oakland County, Michigan, through the American Arbitration Association under its applicable Commercial Arbitration, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.
- (f) **Amendments.** This Agreement may not be modified or amended except pursuant to a written instrument executed by the Company and Consultant.
- (g) **Entire Agreement.** This Agreement sets forth the entire understanding and agreement of the Company and Consultant with respect to its subject matter and supersedes all prior understandings and agreements, whether written or oral, in respect thereof.
- (h) **Headings.** The section headings and captions used in this Agreement are for convenience of reference only and shall not be considered in construing this Agreement.

- (i) **Severability.** If any provision of this Agreement shall be held by a court of competent jurisdiction to be invalid, illegal or unenforceable, such provision shall be modified so as to be enforceable to the fullest extent permitted by applicable law, and the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.
- (j) **Counterparts; Copies.** This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same agreement. Copies (facsimile, photostatic or otherwise) of signatures to this Agreement shall be deemed to be originals and may be relied on to the same extent as the originals.

[Signatures on next page]

IN WITNESS WHEREOF, the Company and Consultant have executed this Supply Chain Consulting Agreement as of the date first written above.

CONSULTANT:

AEGLE PARTNERS 2 LLC, a Michigan limited liability company

By: /s/ Arthur B. Hudson Jr.

Name: Arthur B. Hudson Jr.

Its: Managing Member

COMPANY:

ZIVO BIOSCIENCE, INC., a Nevada corporation

By: /s/ Philip M. Rice II

Name: Philip M. Rice II

Its: Chief Financial Officer

EXHIBIT A

Consulting Services

1. Identify countries and regions that have the agricultural infrastructure, labor and local climate appropriate for algae production
 - a. Identify any existing algae growers in such countries or regions
 - i. Determine if identified growers have the attributes necessary to successfully convert their current algae growing operation to ZIVO algae growing operations, assisted by ZIVO staff
 - ii. For those growers thusly qualified:
 1. Identify principals of the business
 2. Research history and viability of the business
 3. Develop other useful information prior to further consideration
 - iii. Contact the qualified growers and arrange for ZIVO operations personnel or their representative to inspect their growing operations, and assess the viability of converting and growing ZIVO algae
 - iv. Consultant to arrange for local financing or banking relationships, customs clearances, regulatory contacts, and other such commercial/governmental relationships in order to facilitate supply agreements drafted and executed by ZIVO personnel, and to commence production
 - b. Identify potential new grow sites in such countries or regions where it may be viable to construct and operate purpose-built, large-scale production facilities, i.e. Z280 super-farms, and facilitate the creation of joint-ventures to build and operate such facilities
 - i. Determine in a general manner if identified sites have the necessary infrastructure, labor, land, water, power and climate suitable for large-scale algae production, assisted by ZIVO staff
 - ii. For those sites or regions thusly identified
 1. Identify principals/owners that control the site, public or private
 2. Develop background information for the site or region
 - iii. Contact site owners and determine their level of interest in repurposing the site for algae production, financing and regulatory issues that may arise
 - iv. Once qualified, arrange for on-site inspection by ZIVO staff or representatives
 - v. Facilitate commercial agreements between owners and ZIVO principals, assisted by ZIVO staff or regional representatives
 - vi. Facilitate and/or liaison funding or financing for such projects, coordinating with private investors, governments and NGOs as necessary, representing ZIVO principals or their designated representatives in such matters to the extent allowable and appropriate
 2. For ZIVO operations already underway (currently China, India and Peru), Consultant to work in concert ZIVO principals or their regional representatives for specific, identified issues, including, but not limited to, the following:
 - a. Assist and facilitate the identification and resolution of potential issues and problems relevant to local production, import-export, regulatory and legal disputes where intervention or lobbying may be required
 - b. Utilize the resources of Consultant to pro-actively address and solve issues not directly tied to production or logistics on an operational level
-

FIRST AMENDMENT TO SUPPLY CHAIN CONSULTING AGREEMENT

This First Amendment to Supply Chain Consulting Agreement ("Amendment") is made as of September 14, 2019 by and between ZIVO BIOSCIENCE, INC., a Nevada corporation (the "Company"), and AEGLE PARTNERS 2 LLC, a Michigan limited liability company ("Consultant").

RECITALS:

A. The Company and Consultant previously entered into that certain Supply Chain Consulting Agreement, dated as of February 27, 2019, as amended (the "Consulting Agreement").

B. The parties desire to modify the Consulting Agreement in accordance with the terms and conditions of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1. All capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Consulting Agreement.

2. Section 2(a) of the Consulting Agreement is hereby deleted in its entirety and replaced with the following:

"Fees. The Company shall pay Consultant Twenty-Five Thousand Dollars (\$25,000) upon the execution of this Agreement and the Company shall pay Consultant an additional Twenty-Five Thousand Dollars (\$25,000.00) on or before the date six (6) weeks after the Effective Date (the "Start-Up Fees"). In addition, within ten (10) days after a closing on a Development Project, the Company shall pay Consultant Three Hundred Thousand Dollars (\$300,000.00). Following the closing of a Development Project, the Company shall also pay Consultant an on-going monthly fee of Fifty Thousand Dollars (\$50,000.00) on the first day of each month during the following consecutive twenty-four (24) months of the Term. For purposes hereof, the "closing of a Development Project" means the date that as a result of the Consultant's efforts on behalf of the Company, the Company is able, financially and otherwise, to proceed with engineering and construction of algae production facilities, processing, or warehousing facilities and supply chain development, or related business combinations rendering an equivalent outcome (in reasonable determination of the Company), for the production, processing transport, compliance, marketing, and resale of its proprietary algae biomass."

3. Section 2(b) of the Consulting Agreement is hereby deleted in its entirety and replaced with the following:

"Warrants for Common Stock. Within ten (10) days after the closing of a Development Project, the Company shall issue to Consultant a cashless warrant with a five-year term to purchase nineteen million (19,000,000) shares of the Company's common stock at an exercise price of \$0.10 per share. The number of shares issued subject to the warrant and the exercise price shall be adjusted by the Company in the event of any stock split, recapitalization, merger, or other event affecting the capitalization of the Company so that Consultant is entitled upon the exercise of the warrant to the same pro-rata percentage of shares at the time of the stock issue as that represented by the warrant prior to the event requiring the adjustment. In no event shall Consultant be entitled to more than one such warrant under this Agreement, regardless of how many closings of Development Projects or other similar events occur."

4. Except as otherwise modified herein, the Consulting Agreement shall remain in full force and effect consistent with its terms. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document. Copies (photographic, facsimile or otherwise) of this Amendment may be made and relied upon to the same extent as though such copy was an original.

[Signatures on next page]

SECOND AMENDMENT TO SUPPLY CHAIN CONSULTING AGREEMENT

This Second Amendment to Supply Chain Consulting Agreement ("Amendment") is made as of November 24, 2020 by and between ZIVO BIOSCIENCE, INC., a Nevada corporation (the "Company"), and AEGLE PARTNERS 2 LLC, a Michigan limited liability company ("Consultant").

RECITALS:

A. The Company and Consultant previously entered into that certain Supply Chain Consulting Agreement, dated February 27, 2019 and the First Amendment to Supply Chain Consulting Agreement dated as of September 14, 2019, as amended (the "Consulting Agreement").

B. The Company subsequently, on October 16, 2019, issued a fully-vested warrant to Consultant to purchase 3,000,000 shares of common stock, and Consultant desires that the Company issue to Julian Leese, a member of Consultant, a fully-vested warrant to purchase an additional 3,000,000 shares of common stock.

C. The parties desire to modify the Consulting Agreement in accordance with the terms and conditions of this Amendment, to reduce the contingent warrant under the Consulting Agreement by the 6,000,000 shares referred to above.

NOW, THEREFORE, the parties agree as follows:

1. All capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Consulting Agreement.

2. Section 2(b) of the Consulting Agreement is hereby deleted in its entirety and replaced with the following:

“Warrants for Common Stock. Within ten (10) days after the closing of a Development Project, the Company shall issue to Consultant a cashless warrant with a five- year term to purchase thirteen million (13,000,000) shares of the Company’s common stock at an exercise price of \$0.10 per share. The number of shares issued subject to the warrant and the exercise price shall be adjusted by the Company in the event of any stock split, recapitalization, merger, or other event affecting the capitalization of the Company so that Consultant is entitled upon the exercise of the warrant to the same pro-rata percentage of shares at the time of the stock issue as that represented by the warrant prior to the event requiring the adjustment. In no event shall Consultant be entitled to more than one such warrant under this Agreement, regardless of how many closings of Development Projects or other similar events occur.”

3. Except as otherwise modified herein, the Consulting Agreement shall remain in full force and effect consistent with its terms. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document. Copies (photographic, facsimile or otherwise) of this Amendment may be made and relied upon to the same extent as though such copy was an original.

FIRST AMENDED AND RESTATED PARTICIPATION AGREEMENT

Strome Mezzanine Fund LP ("Strome Mezz"), Strome Alpha Fund LP ("Strome Alpha" and, together with Strome Mezz, "Participant") and HEP Investments, LLC, a Michigan limited liability company (in its capacity as a first lien lender "Lender" and, with the Participant, each a "Party" and collectively the "Parties"), enter into this First Amended and Restated Participation Agreement ("Agreement") on the date stated below.

Recitals:

A. The Parties entered into that certain Participation Agreement, dated as of July 21, 2017, as amended (the "Original Agreement") and the Parties desire to enter into this Agreement in order to amend and restate the Original Agreement in its entirety.

B. Zivo Bioscience, Inc., a Nevada corporation ("Borrower"), is indebted to Lender pursuant to a Loan Agreement (as amended from time to time) and an Eleventh Amended and Restated Senior Secured Convertible Promissory Note, in the face amount of up to \$20,000,000.00. In connection therewith, the Borrower and its affiliates have delivered to Lender, without limitation, the Security Agreement, an IP Security Agreement, a Guaranty of Health Enhancement Corporation and HEPI Pharmaceuticals, Inc., a Security Agreement (Subsidiaries) and various patent assignments (each of the foregoing together with all such other loan, guarantee and collateral documents collectively, as amended and/or restated from time to time, the "Loan Documents"). All capitalized terms not defined in this Agreement shall have the same meaning as defined in one or more of the Loan Documents, as context dictates; and without limiting the generality of the foregoing, the term "Obligations" as used herein shall have the meaning set forth in that certain Security Agreement, dated as of December 1, 2011.

C. Pursuant to the Loan Documents, the Lender made available to the Borrower a loan facility pursuant to the Loan Documents (the "Loan Facility" and the previously-funded portion of the loan thereunder, the "Loan").

D. The Participant seeks to purchase from Lender and Lender seeks to sell to Participant for cash, at par, a participation interest ("Participation") in the Loan and Loan Documents.

The Parties agree as follows:

Terms and Conditions

1. Pursuant to the Original Agreement, Strome Mezz purchased a \$1,000,000 Participation in the Loan and Loan Documents and Strome Alpha purchased a \$500,000 Participation in the Loan and Loan Documents (the "Original Purchase Price") and such Participations have been paid in full by the Participant. Strome Mezz absolutely and unconditionally agrees to purchase another Participation in the Loan and Loan Documents in the amount of \$691,187.08 (the "New Purchase Price" and, together with the Original Purchase Price, the "Purchase Price"). The New Purchase Price shall be paid in full by Participant on the date hereof

2. Effective as of the date of payment of the relevant portion of the Purchase Price in good funds, Lender sells and grants to the Participant, and Participant accepts and purchases from Lender, a participation in the Loan and Loan Documents in a principal equivalent amount equal to the portion of the Purchase Price funded by Participant at such time.

3. (a) Without further action by Lender, execution and delivery of this Agreement and receipt by Lender of the relevant portion of the Purchase Price shall constitute a sale and purchase of the corresponding portion of the Participation and shall confer on the applicable Participant with respect to the Participation an interest in the Loan and Loan Documents in an amount equal to the Purchase Price (the "Participant Portion").

(b) Lender shall have the right to apply payments of any kind from any source, including the proceeds of any collateral security, to Lender's interest in the Loan, including all interest, fees, costs and expenses due to Lender from Borrower pursuant to the Loan Documents, and including any and all indebtedness, obligations or liabilities for which Borrower would otherwise be liable to Lender pursuant to the Loan Documents were it not for the invalidity, irregularity or unenforceability of them by reason of any bankruptcy, insolvency or other law or order of any kind, or for any other reason, in any manner in Lender's sole and unfettered discretion, except, notwithstanding the foregoing, any payments applied by Lender to Lender's interest, principal or fees (including prepayment fees) shall also be applied pro rata and paid to Participant for Participant's interest, principal and fees (including prepayment fees).

4. Lender shall have the right to manage, perform, and enforce the terms of the Loan Documents and to exercise and enforce all of the privileges and rights exercisable by it under the Loan Documents, in its sole discretion, without the concurrence of Participant, including the right to amend the Loan Documents, to amend, modify, waive, terminate or release any of the obligations of Borrower; provided, that notwithstanding the foregoing, without Participant's written consent, Lender shall take no action or grant any consent or waiver, or amend the Loan Documents, to the extent any such item (A) materially and adversely affects the Participant's interests or the Participant Portion in a manner divergent or disproportionate to the effect on the Lender's interests, (B) reduces the interest rate payable under the Loan Documents, (C) extends the maturity date on the Loan beyond the date twenty (20) months after [], 2018 or extending the maturity date on the Loan if the Loan has already been accelerated, if Borrower has filed for dissolution, liquidation or federal bankruptcy protection or if an involuntary federal bankruptcy petition has been filed against Borrower and such petition has not been dismissed within forty-five days, (D) forgives or waives the payment of the Loan; (E) causes or permits the Loan Documents to not provide for the Lender to pass through the express requirements hereof to the Participant (*e.g.*, removing rights to equity or conversion in a manner that does not permit the Lender to provide the shares contemplated hereby); or (F) results in the conversion of the indebtedness underlying the Participation without the consent of each Participant (which may be withheld in Participant's sole discretion). Notwithstanding clause (F) of the foregoing proviso, Lender may, without the consent of either Participant, elect to convert indebtedness owing to it from Borrower as contemplated by the Loan Documents if (i) Participant's beneficial interest in the Loan Documents and the indebtedness thereunder remains unchanged after Lender's conversion thereof (*e.g.*, if Participants collectively hold a \$2,191,187.08 Participation in the indebtedness under the Loan Documents prior to Lender's conversion, they continue to hold such amount, as a beneficial interest in convertible indebtedness and without participating in any conversion, upon completion of the Lender's conversion) and (ii) to the extent reasonably requested by either Participant, the Borrower and Lender (and, in each case, their affiliates) execute and deliver documentation in connection with Lender's conversion sufficient to effect and evidence the Participants' unchanged Participation (and Borrower agrees to reimburse Participants' reasonable and documented expenses in connection therewith). To the extent Lender's direct beneficial interest in the principal amount of indebtedness outstanding under the Loan Documents is or becomes, by virtue of conversion or otherwise, less than the principal amount of such indebtedness beneficially owned by the Participants, taken as a whole, the Borrower and Lender (and, in each case, their affiliates) agree to give notice thereof to Participants and, thereafter, upon Participants' request, cause the Loan Documents and indebtedness thereunder to be assigned directly to Participants, such that Participants hold such Obligations in their own name and succeed to all rights, including any voting and control rights, of the Lender thereunder (and Borrower agrees to reimburse Participants' reasonable and documented expenses in connection therewith); provided, to the extent the Lender is counterparty to other participations (not with the Participants) with respect to the Loan Documents that will remain outstanding (after giving effect to any contemplated conversions) at the time of such a required assignment, the parties agree to cooperate in good faith to, at the election of the Participants and as they may agree with such other participants, either (x) maintain such other participations through the Participants' holding of the Loan Documents or (y) cause such other participations to become direct debt obligations payable to the relevant participation holder (and the parties hereto agree to execute and deliver any documents reasonably necessary to effect or evidence the foregoing). This Agreement shall not be construed to create a fiduciary relationship between Lender and Participant. Participant acknowledges and agrees that Lender's actions under this Agreement are strictly administrative and any repayment of principal or interest to any Participant is solely dependent upon Borrower. Except for: (i) a breach of the terms of this Agreement, or (ii) the gross negligence or willful misconduct of Lender, as determined by a final non-appealable judgment of a court of competent jurisdiction, Participant exonerates Lender of and from any obligation or liability, express or implied, for any loss, depreciation of or failure to realize upon the Loan or any Collateral, or for failure to collect or receive payments of any sums owing from Borrower or any guarantors, or for any mistake, omission, or error of judgment in passing upon or accepting the Loan, the Collateral, the Loan Documents, or in making of any advances of monies or extensions of credit to Borrower, or in making any examinations, audits or reviews of the affairs of Borrower, or in granting to Borrower extensions of time for payment of the Loan or in administering or monitoring the Collateral for the Loan. Moreover, Lender does not assume and does not have any obligation or liability and Lender undertakes no guaranties, express or implied, with respect to the existing or future financial worth or responsibility of Borrower or any guarantor or of any of the account debtors of Borrower, with respect to the genuineness or value of the Collateral, or with respect to the payment or the collectability of the Loan.

5. In the event that the Loan is converted into shares of common stock of Borrower in accordance with the requirements of Section 4, Participant shall receive **Twenty-One Million One Hundred and Ninety-One Thousand One Hundred and Eighty-Seven (21,911,870) shares of common stock of Borrower**, and additional shares of common stock for one-half of the accrued but unpaid interest due Participant hereunder at a conversion price of ten cents (\$0.10) per share, in complete satisfaction of any and all rights or obligations under this Agreement, the Loan and/or the Loan Documents, other than the rights set forth in Section 24.

The shares of common stock of Borrower issuable to Participant under this Section 5 shall be allocated 100% to Strome Mezz.

6. Interest on the Purchase Price outstanding from time to time shall accrue at the interest rate(s) provided in the Loan Documents. The Lender represents and warrants that, as of the date hereof, the interest rate provided for in the Loan Document is 11% per annum.

7. Participant represents to Lender that Participant accepts (and is able to bear) the financial risks inherent in the Participation and does not foresee the occurrence of any event that would alter that ability. Further, Participant accepts the full risk of nonpayment of the Loan underlying the Participation by the Borrower and agrees that Lender shall not be responsible for the performance or observance by Borrower or any guarantor.

8. Lender warrants and represents to Participant on a continuing basis that: (i) it has the right, power and authority to sell and assign to Participant the Participation in the Loan and Loan Documents free and clear of all claims, liens and encumbrances whatsoever; (ii) Lender has no knowledge of any fact which would impair the validity of the Loan Documents; (iii) there are valid, binding and legally-enforceable first liens in the Collateral; (iv) Borrower is current in its payment of the Obligation, and no setoffs or counterclaims exist that the Borrower may exercise against Lender; and (v) the execution, delivery and performance of this Agreement do not conflict with, or give rise to a default under, any Loan Document.

9. Participant further acknowledges that the Participation is being made at Participant's request and is the purchase of an interest in an ordinary debt and related collateral security, if any, and is not and shall not be construed to be a "security" as that term is defined under any applicable state or federal securities laws.

10. Participant acknowledges that Participant had an opportunity to make such review and investigation as Participant and Participant's attorneys and advisors believe to be necessary to enable Participant to make an independent, informed judgment with respect to the creditworthiness of Borrower, the value and extent of the Collateral, Lender's rights against Borrower and Borrower's assets and the desirability of purchasing the Participation. Participant also acknowledges that Participant is experienced and knowledgeable in financial matters, and that Participant is not purchasing the Participation for purposes of investment gain (other than the possible payment of interest thereon), and that Participant has all necessary information to make an independent, informed judgment with respect to the financial status and condition of the Borrower.

11. Lender shall use its commercially reasonable efforts to promptly collect, when due, all payments of the principal of, the interest on, and all other amounts with respect to the Loan Documents. Upon receipt of any such amount, whether consisting of any payment of principal, interest or fees (including prepayment fees) upon or in connection with the Loan, or any amount realized upon liquidation of the Collateral, or any amount received by the Lender from any guarantor or other person liable on the Loan or in respect of the Loan Documents, or any amount received by setoff or otherwise, and whether payment is voluntary or involuntary, Lender shall pay to Participant its pro rata share (based on Participant's Participation) of such amounts. Such payments shall be distributed on a pari passu basis with the Lender. Provided, the foregoing shall not apply to amounts applied to reasonable out-of-pocket, third-party costs and expenses, or to indemnities (in respect of third-party claims against Lender), paid to the Lender by the Borrower under the express provisions Loan Documents (as in effect on the date hereof), which may be paid first to the Lender (in each case, to the extent doing so does not reduce the outstanding principal, interest or fees due Lender).

12. Lender agrees, upon learning thereof, to promptly notify Participant in writing of any breach or default by the Borrower in repayment of the Loan or otherwise under the Loan Documents or any agreement or document evidencing, securing, guaranteeing or otherwise relating to the Loan Documents. Such notice shall specify the nature of the breach or default. Lender also agrees to furnish to Participant, promptly after Lender's receipt (unless the same are publicly filed with the Securities and Exchange Commission): (i) financial statements concerning the operations and financial position of the Borrower, its affiliates and/or any guarantor, including both statement of income and retained earnings, a balance sheet and a statement of cash flows, and (ii) all other information received from the Borrower, its affiliates and/or any guarantor relating to them or the Loan Documents.

13. Except as expressly set forth herein, nothing in this Agreement shall be construed to limit or restrict Lender from in any way exercising any rights or remedies arising out of the Loan Documents or any documents or agreements executed by Borrower or provided for under applicable law. Except as expressly set forth herein, Participant shall have no direct right to enforce any of the Loan Documents, including, but not limited to, exercising any rights or remedies arising out of the Loan Documents or any documents or agreements executed by Borrower or provided for under applicable law. Additionally, Lender shall notify Participant in writing of any such actions to enforce any rights or remedies and shall allow Participant the ability be present in any negotiations regarding the same. All rights, remedies and privileges against the Borrower with respect to the Loan, the Collateral, and the Loan Documents may only be exercised by Lender without any requirement of consent or approval of Participant (except to the extent expressly set forth herein). Participant shall not contest, challenge, or object to any of Lender's claims against Borrower (including any claim under 11 U.S.C. § 506(b) in any bankruptcy proceeding), or the extent, validity, perfection, or priority of Lender's liens that secure the Loan (except, in each case, to the extent expressly contemplated hereby).

14. References to Lender in this Agreement shall be deemed to include its respective affiliates, successors, assigns, employees, agents, auditors, officers, directors, and attorneys.

15. (a) Participant agrees not to sell, assign, or transfer or suffer any sale, assignment or transfer of, in whole or in part, its Participation or its interest in the Loan without the prior written consent of Lender, which consent shall not be unreasonably withheld, conditioned or delayed.

(b) Notwithstanding anything in this Agreement or the Loan Documents to the contrary, Lender may sell, assign, or transfer, in whole or in part, the Loan to any person or entity, without the consent of Participant, upon 5 business days' prior written notice to Participant. Notwithstanding any such sale, assignment or transfer, or any subsequent assignment or transfer, the senior obligations of Borrower to Lender shall, subject to the terms of this Agreement, be and remain senior for purposes of this Agreement, and every assignee or transferee of any of the senior debt or of any interest in it shall, to the extent of such interest be entitled to rely upon and be the third party beneficiary of the terms provided under this Agreement, and be entitled to enforce the terms and provisions of this Agreement to the same extent as if such assignee or transferee were initially a party to this Agreement. Any such sale, assignment or transfer of a Loan by the Lender (or any assignee or successor thereto) shall be subject to Participant's rights under this Agreement, which shall be acknowledged in writing by such assignee prior to completion of the applicable assignment.

16. Participant acknowledges that Lender may sell more than one participation in the Loan and Loan Documents, to the extent (x) such participations do not entail or cover more of an interest than held by Lender or (y) reduce in any manner the Lender's obligations hereunder.

17. This Agreement shall be construed in accordance with the laws of the State of Michigan. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement 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 provision or the remaining provisions of this Agreement.

18. Any notice or other instrument to be given hereunder must be in writing and, except as otherwise provided in this Agreement, will be deemed to be duly given if delivered by hand, sent by electronic mail in PDF format, or sent by fax to the Party to which a communication is intended to be given, and any notice so delivered or sent will be deemed to have been duly given at the time of delivery on the day on which it was so delivered or sent. Until changed by notice in the manner described above, the addresses of the Parties for the purpose of notice will be:

If to Lender: HEP Investments, LLC
2804 Orchard Lake Road, Suite 205
Keego Harbor, Michigan 48320
Attn: Laith Yaldao

If to Participant: Strome Mezzanine Fund, LP
Strome Alpha Fund, LP
c/o Mark Strome
100 Wilshire Blvd.; Suite 1750
Santa Monica, California, 90401

19. This Agreement, the guaranty of Laith Yaldao (the "Guaranty"), dated as of the date hereof, and, in each case, any other agreements referenced therein constitute the entire understanding of the Parties in connection with the matters referenced and, except with respect to the Guaranty, shall not be modified or altered except by a writing signed by Participant and Lender. There are no other agreements, oral or written, express or implied, relating to its subject matter other than this Agreement and the other agreements referenced and all prior agreements and understandings (including the Original Agreement) have been merged into this Agreement.

20. Participant acknowledges that Participant has reviewed (or has had the opportunity to review) this Agreement with counsel of their choice and has executed this Agreement of their own free will and accord and without duress or coercion of any kind by Lender or any other person or entity.

21. This Agreement may be executed in counterparts and facsimile copies of any signatures shall be treated as original signatures.

22. LENDER AND PARTICIPANT EACH HEREBY KNOWINGLY, VOLUNTARILY AND WITHOUT COERCION, WAIVE ALL RIGHTS TO A TRIAL BY JURY OF ALL DISPUTES INVOLVING OR RELATING TO THIS AGREEMENT.

23. Lender and Participant further agree as follows: (a) Lender has previously or, with respect to the New Purchase Price, shall promptly loan the Purchase Price to Borrower or, in the discretion of the Parties, the Participant may fund an installment of the Purchase Price directly to Borrower on behalf of Lender; (b) the Participation shall include the Purchase Price paid by the Participant plus all accrued interest thereon (including any prepayment fees); and (c) upon at least ten (10) days advance written notice from Strome Mezz or Strome Alpha to Lender, Lender shall promptly request the conversion of the portion of the Loan represented by the Participation into shares of common stock of Borrower pursuant to Section 5 above and deliver the number of shares set forth in such Section 5.

24. Borrower hereby acknowledges and agrees as follows: (a) on and after the date hereof, for so long as Participant or its affiliates beneficially own at least 15,000,000 shares of Borrower's common stock (or instruments convertible into or exercisable for at least such number of shares of common stock, when combined with the actual common stock owned thereby and, for the avoidance of doubt, including warrants to be issued upon a not-yet-due portion of the Purchase Price), Borrower shall allow Participant to designate one (1) representative (the "Observer") to attend all meetings (including telephonic meetings) of Borrower's Board of Directors solely as an observer and participate in a nonvoting capacity; provided however, that such observation right shall not apply to any matters to which Borrower reasonably wishes to maintain the attorney-client privilege, or any matters for which the participation or presence of the Observer during the discussion thereof would be unlawful or risk a potential claim against or liability to Borrower; (b) in the event that Lender or any other third party desires to make an investment in Borrower (whether in the form of debt or equity (or any agreement, instrument or security convertible or exercisable into, or otherwise requiring the issuance of, debt or equity) in a capital raising transaction but excluding (x) any open market offerings, (y) any securities issued under an equity incentive plan the primary purpose of which is not to raise capital and (z) any securities issued upon conversion or exercise pursuant to the terms of any outstanding debt instrument or securities (to the extent Participant was offered a Right of Participation on the underlying debt, the underlying debt was outstanding on the date hereof or the underlying debt constitutes ROFR Excluded New Debt), Borrower shall offer Participant the right (but not the obligation) to invest up to one hundred (100%) percent of such additional funds on the same terms and conditions as this Agreement or, if more favorable, the terms negotiated between Lender (or such third party) and Borrower (the "Right of Participation"); provided that the Right of Participation must be exercised within ten (10) days after Participant's receipt of written notice thereof, provided further that: (i) the Right of Participation shall not apply to the balance of up to an additional \$2.0 million that Lender began loaning to Borrower as of April 1, 2018 or any additional loans made by Chris Maggiore in the amount of up to \$500,000 (collectively, the "ROFR Excluded New Debt"), (ii) the Right of Participation shall terminate on the third (3) anniversary of the date of this Agreement, (iii) the Right of Participation shall not apply to any investment in Borrower (whether in the form of debt or equity or any agreement, instrument or security convertible or exercisable into, or otherwise requiring the issuance of, debt or equity) resulting from the ongoing efforts of Cascade Partners LLC, and (iv) the Right of Participation shall immediately terminate if Participant fails to pay any portion of the Purchase Price when due hereunder; (c) on the date hereof, Strome Mezz shall receive warrants to purchase 1,000,000 shares of common stock of Borrower at an exercise price of \$0.10 per share substantially in the form attached as Exhibit A; (d) on the date hereof, Strome Mezz shall receive warrants to purchase 15,000,000 shares of common stock of Borrower at an exercise price of \$0.10 per share substantially in the form attached as Exhibit A; (e) on the date hereof, Strome Mezz shall receive warrants to purchase 9,000,000 shares of common stock of Borrower at an exercise price of \$0.10 per share substantially in the form attached as Exhibit B; and (f) Borrower represents that the forms of warrants referred to in the foregoing clauses (c), (d) and (e) are substantially identical to the warrants issued or that will be issued in favor of Lender or its affiliates in connection with the transactions contemplated hereby.

25. Without limiting anything to the contrary herein: (a) Strome Mezz shall receive 77.18% of all consideration and payments payable or distributable to Participant, and shall be responsible for 77.18% of all payments, responsibilities and requirements of Participant, under this Agreement; (b) Strome Alpha shall receive 22.82% of all consideration and payments payable or distributable to Participant, and shall be responsible for 22.82% of all payments, responsibilities and requirements of Participant, under this Agreement; and (c) Strome Mezz and Strome Alpha shall act jointly in any action required or permitted to be taken by Participant under this Agreement other than with respect to provisions where it is reasonably practicable for either such person to act singly.

[Signatures Begin on Next Page]

IN WITNESS WHEREOF, the parties have executed this Participation Agreement as of June 6, 2018.

“LENDER”

HEP INVESTMENTS, LLC

By: /s/ Laith Yaldao
Laith Yaldao, Managing Member

“PARTICIPANT”

STROME MEZZANINE FUND LP

By: /s/ Mark Strome
Mark Strome, as President and CEO of Strome
Investment Management LP, its general partner

STROME ALPHA FUND LP

By: /s/ Mark Strome
Mark Strome, as President and CEO of Strome
Investment Management LP, its general partner

For purposes of Section 24:

ZIVO BIOSCIENCE, INC.

By: /s/ Philip M. Rice
Name: Philip M. Rice
Its: Chief Financial Officer

Subsidiaries of the Registrant

<u>ZIVO Bioscience, Inc. has the following Subsidiaries:</u>	<u>Jurisdiction of Incorporation or Organization</u>
Health Enhancement Corporation	Nevada Corporation
HEPI Pharmaceuticals, Inc.	Nevada Corporation
Wellmetrix, LLC (fka WellMetris, LLC)	Delaware limited liability company
Zivo Biologic, Inc.	Delaware corporation
Zivo Bioscience, LLC	Florida limited liability company

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use of our report in this Registration Statement on Form S-1 of our report dated March 26, 2020 on the consolidated financial statements of Zivo Bioscience Inc. and Subsidiaries for each of the two years in the period ended December 31, 2019, and to the reference to us under the heading “Experts” in the Prospectus, which is a part of this Registration Statement.

/s/ WOLINETZ, LAFAZAN & COMPANY, P.C.

Rockville Centre, New York
December 9, 2020