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

FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year ended December 31, 2019

or

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

For the transition period from _____ to _____

Commission File Number: 000-30415

Zivo Bioscience, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Nevada	**87-0699977**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

2804 Orchard Lake Rd., Suite 202, Keego Harbor, MI 48320
(Address of Principal Executive Offices)

(248) 452 9866
(Registrant's telephone number)

Securities registered pursuant to **Section 12(b) of the Exchange Act:**
None

Securities registered under Section 12(g) of the Exchange Act:
Common Stock, par value $.001 per share
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes [ ] No [X]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes [ ] No [X]

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes [X] No [ ]

Indicate by checkmark whether the registrant has submitted electronically every Interactive Date File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes [X] No [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or 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	[ ] (Do not check if a smaller reporting company)	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 13(a) of the Exchange Act. [ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes [ ] No [X]

The aggregate market value of the issuer's voting and non-voting common equity held as of June 30, 2019 by non-affiliates of the issuer was $18,825,967 based on the closing price of the registrant's common stock on such date.

As of March 26, 2020, there were 402,198,752 shares of $.001 par value common stock issued and outstanding.

Documents Incorporated by Reference

Portions of the proxy statement for the 2020 annual meeting of shareholders are incorporated by reference into Part III of this Annual Report to the extent described herein.

FORM 10-K
ZIVO BIOSCIENCE, INC. AND SUBSIDIARIES INDEX

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained in this report are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements involve known and unknown risks, uncertainties and other factors which may cause our or our industry's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to statements regarding:

- *our ability to raise the funds we need to continue our operations;*
- *our goal to begin to generate revenues and become profitable;*
- *regulation of our products;*
- *market acceptance of our products and derivatives thereof;*
- *the results of current and future testing of our products;*
- *the anticipated performance and benefits of our products; the ability to generate licensing fees; and*
- *our financial condition or results of operations.*

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would,", "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential," and similar expressions intended to identify forward looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this report. Except as otherwise required by law, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained in this report to reflect any change in our expectations or any change in events, conditions or circumstances on which any of our forward-looking statements are based. We qualify all of our forward-looking statements by these cautionary statements.

PART I

Item 1. Business.

Unless we state otherwise or the context otherwise requires, references in this Annual Report on Form 10-K to "we," "our," "us," "the Registrant" or "the Company" refer to ZIVO Bioscience, Inc.., a Nevada corporation, and its subsidiaries.

General

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.

We acquired HEC in 2003 because we believed its unique and complex algal culture produced natural bioactive compounds that promoted health benefits. A production facility based in Scottsdale, AZ produced and marketed a liquid dietary supplement with marginal success beginning in 2003 until sales were suspended in January of 2012.

Our new management team, in place since December 2011, determined the sole focus for the near term was to move forward with a research-based product development program. From 2012 through 2019, we have engaged fully in such activities, all as more fully explained herein. We hold significant intellectual property in the form of bioactive compounds, patented applications and processes, an optimized algal strain, nutritional products and applications derived from our proprietary algal biomass that can find their way into food, feed, supplements and therapeutics.

From the start of 2017 and moving into 2020, we have been conducting the final phase of validation for a discovery-stage bovine mastitis treatment, consisting of *in vitro* and *in vivo* studies, which is intended to dovetail with analytics and characterization of bioactive compounds produced by the algae itself. This body of work will be submitted to Zoetis, Inc. (ZTS) ("Zoetis") a global animal health company, per an option/collaboration agreement dated December 19, 2013 and amended in 2019 (fifth amendment), to determine if our bioactive compounds exhibit efficacy in addressing bovine mastitis, a common condition afflicting dairy cows that results in milk production losses. Upon completion of the research, we expect to move into negotiations regarding the option payment and subsequent licensing.

Upon the finalization of the negotiations on the aforementioned option and license agreement, we plan to explore our options for further licensing arrangements as they relate to poultry and other livestock, canine joint health and potentially human cholesterol management.

To that end, we expanded our research in 2018 and 2019 to include applications of bioactive molecules originally derived from the algal culture to other animal health conditions, in poultry, canine and swine. This effort, spread out across several research laboratories working in parallel, resulted in the successful isolation and characterization of a novel non-starch polysaccharide with exceptional properties in addressing immune modulation and inflammatory response for both animal and human use. A patent application was filed at the close of 2019.

On the food and feed application side of the business, our business model anticipates deriving future income from licensing and selling natural ingredients that may be extracted from or are initially based on our proprietary alga1 cultures. In line with this, on April 20, 2017, we entered into a Limited License Agreement (the "License Agreement") with NutriQuest, LLC ("NutriQuest") a recognized leader in animal health and nutrition solutions. In the License Agreement, we granted to NutriQuest a limited, exclusive license to market, distribute, sell and collect the sales proceeds in all of our nutrition, feed additive and supplementation applications relating to naturally-derived algal biomass and extraction products for oral administration in swine and/or poultry species. As mentioned above, we affirmed human GRAS Generally Recognized As Safe, or "GRAS" status as a plant-based ingredient in food products for human consumption. We are in the process of garnering poultry GRAS status as a production feed ingredient and expect that approval in late 2020. We have also entered into an Exclusive Supply Agreement (the "Exclusive Supply Agreement") with NutriChipz, LLC ("NutriChipz") to supply our algae as an ingredient in chips and crisps. Other applications available for out-licensing include spice mixes, rubs and condiments. Funding is required to grow algae at commercial scale in order to meet compliance for animal feed ingredient and supply NutriQuest, NutriChipz and others with product.

Further, we expect these new product formulations will likely be sold to much larger, well-established 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) bulk sales of such ingredients. We expect bulk ingredients to be made by contracted algae growers and then sold by us to animal food, dietary supplement and food processors and/or name-brand marketers.

In January 2007, we established HEPI Pharmaceuticals, Inc. as our wholly owned subsidiary ("HEPI Pharma"). The purpose of HEPI Pharma was to develop potential pharmaceutical applications for the bioactive ingredients that may be derived from our algae cultures.

In February 2013, we formed ZIVO Biologic, Inc., a Delaware corporation ("ZIVO Biologic"), for the purpose of manufacturing and commercialization of proprietary ingredients for non-medicinal animal health applications. ZIVO Biologic is 100% owned by ZIVO Bioscience, Inc. ZIVO Biologic is not currently conducting any operating activities.

In August 2013, we acquired the assets, consisting primarily of intellectual property rights, of Wellness Indicators, Inc. ("Wellness"), a Michigan corporation based in Illinois. Concurrently, we formed WellMetris, LLC as a 100% owned entity of ZIVO. In 2018, we changed the name of WellMetris, LLC to Wellmetrix, LLC ("Wellmetrix"). We acquired four patent applications as part of the transaction, in addition to engineering drawings, prototypes, chemical formulae, validation data, laboratory equipment and IT equipment. We assigned all of the intellectual property acquired to Wellmetrix with a stated value of $1,391,281.

The mission of Wellmetrix is to develop, manufacture, market and sell Wellness Tests. The Wellness Tests are intended to provide individuals the information and opportunity to optimize their health and identify future health risks or to provide insurers, employers and healthcare providers with timely information to intervene with wellness programs, fitness regimes or other preventative measures. During the period of time we have owned Wellmetrix, we have drafted and filed an additional fifteen patent applications around the intellectual property acquired, as noted in the section "Patents and Proprietary Rights." In the summer of 2014, we evaluated the circumstances related to the original four patent applications acquired and determined that two of the existing patent applications could be improved and filed new patents applications to redefine and better protect our intellectual property. We have abandoned one of the initial four patent applications purchased, released two of the four applications purchased and substituted them with two new patent applications, and retained ownership of one of the four applications purchased, which has now converted to a national phase application. In connection with the abandoned patents, we have protected our rights with regards to the original patent applications purchased, however we determined we should record a loss on abandonment of $1,391,281 for the year ended December 31, 2014 as the initial value of the acquired patent applications pending resides in the newly drafted and filed eight patent applications. On December 25, 2018 the U.S Patent and Trademark Office ("USPTO") issued Patent No. 10,161,928 – Wellness Panel, effectively securing the core conceptual premise of the Wellmetrix technology platform.

2019 Highlights

The most significant development in 2019 was the isolation and description of a novel polysaccharide with immune modulating and anti-inflammatory properties. We believe it is responsible for some of the various positive benefits we've observed in both dairy cow and poultry research studies. This molecule may represent an entirely new class of therapeutics or medicinal products with wide-ranging applications. Accordingly, we filed a US patent to protect the technology in December 2019.

On the biotech side of the business, which focuses on biologically active molecules initially derived from the proprietary algal culture, we have developed a more refined strategy to define the mechanism of action for our molecules in poultry, namely:

- The direct effect on the Eimeria parasite – a global poultry health issue
- The direct effect of our bioactive molecules on poultry immunity via various key immune biomarkers
- Kinomics analysis currently underway involving 771 markers of immune response and metabolic pathways

Our work with bovine mastitis continues, when funding is available to do so. At the close of 2019, we await data and results from a study conducted earlier in the year by long-time research collaborator Dairy Experts, based in California. This most recent study yielded a massive amount of data, which takes considerable time and effort to compile and analyze before any results can be announced.

With respect to the agtech side of the business, which focuses on dried algal biomass and extracts thereof, we vastly accelerated the poultry testing schedule, with 10 new studies initiated or completed in 2019, versus 2 studies completed in each of the two previous years. Some of the notable findings include the following:

- Demonstration of beneficial effects by treating poultry drinking water with a few drops of ZIVO algal extract added
- Multiple confirmation of beneficial effects and nutritional enhancement by introducing small amounts of dried algal biomass into poultry feed
- Demonstration of improved vaccine efficiency when chicks are fed small amounts of dried algal biomass during the vaccination process
- Multiple confirmations from repeated testing that dried algal biomass boosts immune response in broilers
- Repeated demonstration that salmonella is reduced when dried algal biomass is consumed in very small quantities
- A study conducted at University of North Carolina Greensboro revealed a positive effect in poultry microbiome
- Announced results of a study that shows improvement in feed conversion ratio when dried algal biomass is consumed by broilers at an inclusion rate of approximately

We also extended a letter of intent with Grekin Laboratories and Dr. Steven Grekin to formulate, test, manufacture and market a suite of anti-aging and skin health supplements and food products featuring our proprietary algal biomass, pending availability of funding. Funding is required to produce sufficient biomass for clinical trials per the Letter of Intent executed by both parties.

We established an algae production base in India, contracting ALG India Enterprices pvt LTD ("ALG India") (fka Shibin), an experienced spirulina grower, to exclusively produce ZIVO algae for export to the US. ALG India has also undertaken construction of a 25 acre facility dedicated to ZIVO algae and financed by Swedish investors, to be completed in a phased fashion as production is scaled during the first half of 2020. Other growers and laboratories in India are being approached. We also executed a letter of intent with Peruvian agribusiness Alimenta to exclusively produce ZIVO algae for export to the US and EU.

The garnering GRAS status for a poultry feed ingredient is expected to be achieved in late 2020, depending on available funding. To that end, we have completed a number of studies relating to poultry production that support optimized animal nutrition. Our dried algal biomass has been classified as an animal feed material in the EU, and testing is planned with NutriQuest in the Czech Republic in Q2 2020.

Relating to R&D funding, 2019 saw continued but inconsistent funding, resulting in start-stop of several key research initiatives and resulting delays in obtaining results and sharing with our prospective partners and potential licensees. We are continuing with our research partners to conduct classical, non-GMO strain development to improve cultivation efficiencies for our proprietary algal strain. On the pharmaceutical side, we are continuing work on the discovery and analytics work pertinent to the bovine mastitis therapeutic candidate, and to enter the final arm of the *in vivo* validation study. ZIVO has also expanded its poultry research after a number of successful field trials. A number of key research organizations were engaged to work on several fronts simultaneously in order to compress the timeframe and approach the tasks from different functional and analytical perspectives. The research organizations included the National Center for Natural Product Research at the University of Mississippi, Michigan State University School of Veterinary Medicine, University of North Carolina – Greensboro, Iowa State University, University of Illinois, , Eurofins, SBH Biosciences, Dairy Experts and Elicityl, among others. The achievement of our R&D goals is subject to the availability of sufficient funding.

Marketing and Sales

ZIVO Algal Products & Derivatives

The marketing and sale of all future products are subject to compliance with applicable regulations. Based on the findings from ongoing research, we have approached and are continuing to approach potential customers or licensees in the market verticals described below. The products described throughout this document are still in the development stage and are subject to development risk. There can be no assurance that any of the products described below will prove to be effective, or if found to be effective, will be able to be produced in a commercially viable manner. We have affirmed human GRAS in the USA and for the EU our dried algal biomass has been classified as an animal feed material. As we continue to work on regulatory around the world, funding is required to grow algae at commercial scale in order to accomplish commercialization of our products.

Animal Health and Nutrition

A 2007 pilot study in dairy cows indicated that our algal culture may be effective in fending off the onset or significantly reducing symptoms of bovine mastitis – a condition that effectively stops milk production in affected cows. According to the National Mastitis Council, the condition affects 10% of the U.S. dairy herd at any one time, costing producers approximately $1,100 per case. In the U.S. alone, production losses are nearly $3 billion. *Mycoplasma bovis* causes a highly contagious and potentially fatal form of bovine mastitis (an infection of the mammary gland), for which there currently is no treatment. In the cow's udder, mammary epithelial cells form an immunological barrier to protect the mammary gland. When bacteria or other pathogens break through this barrier, an infection can set in, affecting quality and quantity of milk produced. Our compounds showed promising early results for restoration of the immunological barrier in experiments conducted *in vitro*, as conducted by the Principal Researcher at the University of Wisconsin - Madison, Department of Dairy Science.

On December 20, 2013 (as amended in 2019 – fifth amendment), we entered into a Collaboration and Option Agreement (the "Zoetis Agreement") with Zoetis, a global animal health company, in connection with the prevention, treatment, and management of bovine mastitis. In the Zoetis Agreement, we granted to the counterparty an exclusive option to negotiate an exclusive license with us. Specifically, upon completion of the final phases of a collaborative program, and acceptance of the work product by Zoetis, the Zoetis Agreement provides for a 90-day exclusivity period for evaluation of results, followed by a 90-day period to exercise the option and negotiate an option payment.

With respect to livestock and poultry applications, we intend to move on three related fronts – working to bring an algal feed ingredient to market in the United States and EU by amplifying the algae culture; working to produce a dietary supplement or feed additive for global consumption outside the U.S.; and, putting ourselves in a position to license the isolated bioactive molecules to a pharmaceutical or drug development company for synthetic development as a prescribed treatment for production animal applications. The isolated bioactive molecules form the intellectual property of interest to Zoetis. The feed ingredient, feed additive and dietary supplement are intended for other potential collaborators along with NutriQuest, (whose agreement covers swine and/or poultry species only). During 2019, the Company elected to focus its limited resources on poultry applications as they represent the nearest term revenue opportunities.

A 2008 pilot study in dogs indicated that our algal culture may be effective in relieving the symptoms of osteoarthritis and soreness from overexertion. That same experiment with our amplified algae culture can be repeated in dogs, which if successful could allow a relatively rapid release to production and sales as a companion animal dietary supplement. According to the Nutrition Business Journal, the canine joint-health dietary supplement market segment tops $360 million annually in the U.S. alone. Estimates for the world market may be substantially higher, but such estimates are difficult to obtain. An *in vitro* tissue explant experiment conducted by the Comparative Orthopaedics Laboratory at University of Missouri in 2016 found that direct stimulation of living canine joint tissue with our bioactive compounds protected cartilage from degradation by IL-1b, an inflammatory cytokine. If our product is proven to be effective *in vivo* and can be produced on an efficient basis, we intend to sell or license our product as a supplement ingredient to larger, well-established and profitable brand names in the pet industry. We have conducted other laboratory studies simulating the effects of canine osteoarthritis with generally positive results. All of this work has been put on hold pending the availability of additional funding.

With all of the above, the isolated bioactive molecules found in the amplified algae product may, subject to successful negotiations, be licensed to a pharmaceutical company for development as a synthetic prescription drug. We expect that the process of developing and testing such a drug could take years. Therefore, as is common practice, we intend to work toward negotiating an upfront discovery-stage licensing fee, milestone payments upon each successful conclusion of a developmental phase, followed by pre-market approval; and finally, a steady stream of royalties in the future. The other revenue streams are generated by feed and supplement sales which may begin to be realized in 2020, but no assurance can be provided in that regard. Much of the research and licensing progress has been and will continue to be paced by the availability of capital funding and/or debt financing (see Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations: Liquidity and Capital Resources).

In April 2017, we entered into the License Agreement with animal health innovator NutriQuest, which provides nutritional services to the biggest brand names in US poultry and pork production. We have completed a number of "pen" studies (pen studies are controlled testing of our ZIVO Algae to groups of incubator chicks ranging in size from 1,000 chicks to 25,000 chicks, ultimately up to 1 million chicks - "broilers"). In the U.S., broilers consume more than 61 billion pounds of feed annually. The U.S. is the third-largest poultry producing nation. Phytogenic or plant-based ingredients like ours constitute the fastest-growing segment of the global poultry feed industry, currently generating about $780 million in sales annually, and growing at 8% annually. We are well-positioned to take market share if we meet expected market pricing parameters.

Functional Food Ingredient - Human

According to NutraIngredients-USA, functional foods, or health foods, represent an estimated $20 billion business in the U.S. and a $28 billion business in Europe. The Middle East, although significantly smaller, is growing at a rate of 12-14% annually, followed closely by the newly affluent in China and India. These foods typically are processed products that contain one or more staple foods augmented with a variety of performance-enhancing ingredients.

We entered into the Exclusive Supply Agreement in 2018 to supply the ZIVO Algae to NutriChipz to gain a presence in the functional food market. As we move forward into 2020, we plan to work with other suppliers in the functional food market vertical as our algae supply expands, having engaged The Mansour Companies as brokers for sports nutrition market verticals, and HISCO as marketing representatives for functional food ingredients in the EU and US. Additional funding is required to grow algae at commercial scale in order to supply NutriChipz, The Mansour Companies and others with product.

Dietary Supplement & Nutraceutical - Human

The success of spirulina, dried kelp, Omega-3 fish oil, resveratrol, saw palmetto and similar supplements attests to the American public's obsession with 'natural' products. The dietary supplement business is a $24 billion industry in the U.S. alone, and twice that the world over.

Rather than attempting to market as a branded nutraceutical or supplement, we will endeavor to private-label the compound or finished product for larger, well-established marketers and retailers. If we are able to accomplish this, we believe this is a more efficient use of capital and resources, while still retaining control of the intellectual property, the manufacturing process and pricing power. Our goal is not to be placed in a position where our premier product application is commodified and we must compete on price.

As an entry into this market, we have executed a letter of intent with Grekin Laboratories, directed by Dr. Steven K. Grekin, in a joint effort to develop, test and launch an exclusive line of products designed to address skin health and the appearance of aging through novel combinations of all-natural ingredients featuring the ZIVO proprietary algae strain. The initial product line being readied for launch includes a nourishing complex, fatty acid replenishment, collagen/protein mix and phytonutrient booster. Additional funding is required to produce sufficient algal biomass for clinical trials per the Letter of Intent executed by both parties.

Medicinal Food and Botanical Drug

Doctors prescribe medicinal foods and botanical drugs prior to, during or after various medical procedures, including surgery, chemotherapy, radiation therapy and physical therapy. At times, medicinal foods are used to augment the effects of prescription drugs. These medicinal foods are expensive and typically reimbursed by health insurers. Botanical drugs can also be made available over-the-counter (OTC) after an extensive compliance program.

We believe that this area has potential for us if we can demonstrate that various properties of the algal extract can be isolated and produced as a medicinal food or beverage prescribed by physicians, or as an OTC botanical drug. These sectors are both regulated by the Food and Drug Administration ("FDA"). Medicinal food standards are somewhat less stringent than pharmaceutical applications. Botanical drug standards are similar to other pharmaceutical applications. Under our business model, if we are able to produce a commercial product in these areas, we will endeavor to enter into a private-label arrangement with a larger strategic partner to produce and distribute these product applications. Our goal is to turn over the drug candidates at discovery stage and allow the licensee to move the drug development program forward.

Pharmaceuticals

We believe that we may be able to pursue prescription drug applications for our product. The process for developing a new prescription drug is costly, complex and time-consuming. It is an undertaking well beyond our financial capabilities and one that may take several years to achieve. Our intent is to out-license the natural molecules at discovery stage and allow the licensee to develop the Investigatory New Drug (IND) filing and conduct subsequent safety/efficacy phases in order to bring a therapeutic product to market. If we elect to pursue the development of a prescription drug, we will likely seek a partnership with a co-developer that will share in the risk and expense of the initial development process, and then share in any royalties resulting from the licensing or sale of any synthetic molecule and its homologs we are able to develop and license.

The first such step was the execution of the bovine mastitis Collaboration and Option Agreement with Zoetis. Part of our business plan is to execute agreements that may ultimately result in option payments, licenses fees and royalty payments across animal and human applications, typically at the discovery stage.

Wellmetrix

Wellmetrix was formed for the purpose of developing, manufacturing, marketing, and selling tests that we believe will allow individuals and their care providers to optimize personal health and identify future health risks. The information obtained will also provide insurers, employers and healthcare providers timely information to intervene with wellness programs, fitness regimes or other preventative measures. We plan to develop and commercialize such tests in three phases:

- In phase one ("Phase One") or, alternately named Gen 1.0, we plan to develop and commercialize a series of tests, which are intended to measure indicators of good health and optimal metabolic function (collectively, the "Phase One Test"). The Phase One Test has been designed to measure biomarkers related to oxidative stress, inflammation, and antioxidant status to establish a metabolic assessment from which intervention can commence, and from which metabolic syndrome can be inferred. A patent that covers this particular combination of biomarkers was issued December 25, 2018.

- In phase two ("Phase Two") or alternately named Gen 1.5, we plan to develop and commercialize a testing technology focused on the positive or negative metabolic effects of metabolizing fat and muscle efficiency due to changes in diet, exertion, hydration and dietary supplements in a self-administered format that integrates with smartphone operating systems.

- In phase three ("Phase Three") or alternately named Gen 2.0, we plan to develop and commercialize additional tests intended to provide a more complete metabolic profile for an individual utilizing the metabolites present in urine. The Company believes the Gen 2.0 tests, in aggregate, will allow identification of healthy versus unhealthy bodily processes in real-time. This technology can also be applied to livestock and companion animals. As capital funding becomes available, the Company will move forward with finalizing its transition cow syndrome test, for which a provisional patent application has already been filed.

We are currently in Phase One of development as described above.

We believe there is a viable market for our Wellness Tests. More than 19% of Americans are afflicted with cardiovascular diseases, diabetes, autoimmune diseases and cancer. The Wellness Tests are intended to identify pre-conditions to such illnesses. Such identification may allow for early intervention and reduce incidence of such illnesses or forestall their onset. This is critically important to large employers, insurers and governmental agencies who are payers for health claims and are facing massive increases in premiums or cash outlays.

The Wellmetrix technology also incorporates sophisticated software to analyze, report, record and manage wellness and health data for an individual or large groups such as large employers, pension funds, accountable care organizations, state Medicaid agencies and their actuarial consultants, underwriters, re-insurers and wellness consultants. The software also contains tools to conduct meta-analysis of baseline health benchmarks and monitor the progress of pre-clinical intervention programs within large groups. We were awarded a US patent for the Company's novel Wellness Panel, which was announced in January of 2019.

Later in 2019, we attracted the attention of DSM, a Dutch multinational that adopted a global personalized nutrition initiative and has contracted Wellmetrix to use its proprietary test platform to substantiate the healthiness of two premier DSM functional food ingredients. This represents the first revenue opportunity for Wellmetrix.

However, due to funding issues, the project with DSM cannot move forward, as we are obliged to furnish certain study components at our own cost. Therefore, 2019 saw a renewed effort to either sell or fund independently Wellmetrix and spin it out as a free-standing business.

Competition

ZIVO Algal Products & Derivatives

Generic dietary supplements and functional food ingredients such as vitamins, Omega-3 and antioxidants are made and marketed in a fiercely competitive, price-sensitive market environment. Recently, several algae producers have made health claims for their proprietary algae strains, ranging from alternative treatment for diabetes to controlling some HIV symptoms. Proprietary products offered by some marketers are often dogged by unsubstantiated claims of product efficacy or present potential product safety issues, which in turn draw the attention of regulators. The optimal position for a supplement and ingredient maker is when pricing power can be exerted through well-protected intellectual property and further backed by well-documented safety and efficacy claims.

We believe that our primary competition will come from innovators in food technology such as DSM-Martek, 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. However, we intend to approach these very same competitors as potential strategic partners, in order to leverage their specific expertise in certain food and supplement categories where a mutually beneficial relationship can be established. There can be no assurance that this strategy will be effective.

With respect to animal health, the companion animal dietary supplement segment, and specifically canine joint health, is made up almost exclusively of chondroitin/glutathione supplements, which have dominated that segment for more than a decade. This $360 million segment represents a potentially lucrative opportunity to introduce a completely new product if we are able to demonstrate superior benefits and produce a product at a comparable price. It is likely we will partner with an established animal health brand name.

Further, the animal health market as it pertains to mastitis in dairy cows, and specifically feed ingredients that exhibit beneficial properties, has been largely in the realm of yeast-based products. Only recently has there been a focus on algae-based alternatives, as promoted by Alltech with its $200 million expansion of an algae facility in Kentucky. In the U.S., feed ingredients cannot be promoted using any form of health claim, and dietary supplements for production animals are, to our knowledge, non-existent due to FDA/CVM regulation. However, outside the U.S., the use of dietary supplements is widespread, and we intend to market our refined ingredients to a worldwide market in partnership with a global brand name.

Wellmetrix

The biomedical and biotech fields are fiercely competitive. Many of the “wellness” tests available to the healthcare consumer or provider are not necessarily accurate nor reliable because most do not take into account urine concentration as normalized by creatinine or specific gravity, which changes markedly throughout the day. This normalization process is included in the Wellness Panel patent issued in December 2018. Blood-based wellness tests can be even less reliable because the biomarkers for oxidative stress and inflammation are extremely dynamic and will often change before the blood can be tested, casting doubt on the results.

Although we are not aware that competitors or competing products have entered the market recently, there is no guarantee that our products will be proven to be effective and commercially viable, or that a larger, better-financed competitor may not emerge once we begin promoting our products.

Raw Materials

ZIVO Algal Products & Derivatives

We produce our microbial mixture using third party facilities. At the close of 2019, we continue to use the AzCATI facility at Arizona State University to produce our microbial mixture for continued experimentation and as a source of inoculum to seed ponds of contracted growers overseas. Our initial approach to building a global supply chain is to approach existing spirulina algae growers. Spirulina producers can easily convert their ponds to grow the ZIVO algae strain. This would allow us to rapidly build production capacity with relatively low capital expense. Once a licensed grower supply chain is established, we will endeavor to build larger scale facilities with joint venture partners in locations best suited for our proprietary algal strains. This is intended to provide stability and consistency in the global supply.

In 2019 and into 2020, we are working with two ZIVO algae contract growers in India. We also have a Letter of Intent with a grower in Peru and anticipate approval from that Government to import our ZIVO Algae strain into Peru in the second quarter of 2020. We are actively pursuing other algae producers in other areas of the world, including Thailand, Viet Nam and Indonesia

Wellmetrix

In tandem with seeking regulatory approval, we will need two physical components to deliver our services. A dedicated, custom reader device and a test comprised of eight (8) different chemistry tests on a single urine test panel housed in a proprietary disposable cartridge.

The dedicated, custom reader device is manufactured by a third party to our specifications. We do not believe that there is a risk of supply, as there are several manufacturers available to produce the unit.

The test panel and proprietary cartridge are manufactured by a third party to our specifications. We do not believe that there is a risk of supply, as there are several manufacturers available to produce the units.

Dependence on Customers

ZIVO Algal Products & Derivatives

As discussed above, we reoriented the business model to focus on research and development in order to license our product and technology to third parties and to furnish algal biomass in bulk. Our potential customers are larger, well-established brand names in nutrition and health who will likely combine our algal biomass with other ingredients for feed, food and beverage applications. At this time, there are no customers providing any revenue.

Wellmetrix

Wellmetrix products will initially be private-labeled to established brand-names in the personal health space. Several such brand names have been approached, however, due to funding issues, this initiative has been placed on hold for the near term.

Production

ZIVO Algal Products & Derivatives

As discussed above in the section titled "Raw Materials", we produce our microbial mixture using third party laboratory facilities. We are producing ZIVO algae at contract growers in India. We have Letters of Intent to produce our ZIVO Algae in Peru upon in-country Government approval to import the ZIVO Algae strain. We are actively pursuing other algae producers in other areas of the world.

Wellmetrix

As discussed above, we are using third parties to manufacture our custom reader device and test panel, which we are currently using for development purposes.

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 patient 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.

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.

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

Title	Country	Patent/Application Number	Status
Algal Feed Ingredient for Controlling Coccidiosis and Necrotic Enteritis in Poultry	US	PCTUS19/67600	Filed 12/19/19; national stage deadline 6/21/21
Agents and Mechanisms for Treating Hypercholesterolemia	EU	SN 11745434.8	Filed 2/22/11; response to exam report filed 6/28/19; undergoing prosecution
Agents and Mechanisms for Treating Hypercholesterolemia	US Div.	SN 15/330,830	Filed 11/7/16; office action received 4/19/19; office action response filed 10/16/19; undergoing prosecution
Composition and Use of Phyto-percolate For Treatment of Disease	Canada	2,631,773	Office action response submitted on 12/20/18
Composition and Method For Affecting Cytokines and NF-kB	BR	BR 11 2012 011678.9	Request for examination submitted 11/11/13; awaiting examination
Compounds and Methods for Affecting Cytokines	CIP	16/273,794	Continuation filed 2/12/19; office action received 3/11/19; notice of publication issued 6/13/19; office action response filed 7/10/19; information disclosure filed 7/15/19; office action received; office action response due 2/7/2020 (extensions available till 4/7/2020

Title	Country	Patent/Application Number	Status
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	US	15/913,712	Filed 3/16/18; Notice of Recordation received 3/6/18; notice of publication received 9/13/8; awaiting examination; information disclosure filed 7/15/19
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass1	Brazil	BR1120190186002	Filed 3/6/19; request for examination due 3/6/21
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	Mexico	MX/a/2019/010670	Filed 3/6/18
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	Peru	1820-2019	Filed 3/6/18
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	Thailand	190105502	Filed 3/6/19 notarized POA filed
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	China	TBA	Filed; request for examination due 3/04/2020
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	EU	EP 18763110.5	Filed 10/4/19
Dietary Supplements, Food Ingredients and Foods Comprising High-Protein Algal-Biomass	Taiwan	107107720	Filed 3/7/18; certificate of Biological Material Deposit and complete translation of English text of claims and abstract filed with Taiwan patent office 6/14/18 and 7/9/18; request for examination due 3/7/21
Methods of modulating immune response and inflammatory response via administration of algal biomass	US	15/550,749	Filed 8/11/17; received filing receipt and notice of acceptance 10/16/17; Notice of Publication received 1/25/18; response to office restriction filed 6/21/18; Information Disclosure Statement filed 8/31/18; office action received; response to office action filed 7/5/19; information disclosure filed 7/15/19; office action received 7/31/19; office action response filed 01/31/2020.
Methods of modulating immune response and inflammatory response via administration of algal biomass	EU	EP16752918.9	Voluntary amendment to claims filed April 2018; search report received 10/3/18; response to supplemental search report filed 3/6/19.
Methods of modulating immune response and inflammatory response via administration of algal biomass	BR	1120170175991	Filed 8/16/17; exam requested 2/14/19 with amended claims; awaiting examination
Methods of Modulating Immune Response and Inflammatory Response Via Administration of Algal Biomass	HK	18108238.5	Standard Hong Kong patent was filed on 6/26/18

Title	Country	Patent/Application Number	Status
Methods of Modulating Immune Response and Inflammatory Response Via Administration of Algal Biomass	CA	3,011,687	Filed 7/23/18; request for exam due 2/16/21
Nutritional Support for Animals via Administration of an Algal Derived Supplement	China	201780023561.5	Filed 10/12/18; request for examination filed 2/18/19 with amended claims; awaiting examination
Nutritional Support for Animals via Administration of an Algal Derived Supplement	EU	EU 17753729.7	Filed 9/12/18; amended application filed
Nutritional Support for Animals via Administration of an Algal Derived Supplement	US	15/998,619	Filed 8/16/18; information disclosure filed 7/15/19; awaiting examination
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	MX	MX/a/2018/009818	Application filed 8/13/18; awaiting first exam report
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	CA	3,014,897	Canadian Application filed 8/16/18; examination report received; response to examination report filed 2/1/2020
Nutritional Support for Animals Via Administration of an Algal Derived Supplement	Hong Kong	19,125,173	Filed 6/13/19; awaiting grant of related EPO application
Nutritional Support for Human via Administration of an Algal Derived Supplement	Taiwan	107104744	Filed 6/11/18; request for examination due 2/9/2021
TL84 Selective Inhibitor and Uses Thereof	US	Provisional 62/944,757	Filed 12/5/19; non-provisional filing deadline 12/5/20; declaration and POA filed

WellMetris

We have rights in certain patent applications and trademarks. The patent filings below are pertinent to the operation of the Wellness test, its constituent components and the methodology of the test panel.

Title	Country	Patent/Application Number	Status
Sample Collection Device and Method for Urine and Other Fluid	US	15/569,376	Filed 10/25/17; preliminary amendment filed 10/25/17; declaration and assignment filed 1/11/18; notice of recordation received and awaiting first office action; Notice of Publication received 10/18/18; information disclosure filed and received 3/21/19; office action restriction requirement received; response filed 2/1/2020
Sample Collection Device and Method for Urine and other Fluids	CA	2984152	Application filed 10/26/17; request for examination due 4/28/21

Title	Country	Patent/Application Number	Status
Sample Collection Device and Method for Urine and other Fluids	EU	EP16787127.6	Application field 11/10/17; objection notice received 2/18/18; received search report 9/13/18; response to objection filed 4/2/19; request for examination due 4/28/21
Sample Collection Device and Method for Urine and other Fluids	JP	2017-556723	Application filed 10/27/17; request for examination due 4/28/19; request for examination filed 5/7/19; awaiting first exam report
Sample Collection Device and Method for Urine and other Fluids	MX	MX/a/2017/013898	Application filed 10/27/17
Sample Collection Device and Method for Urine and other Fluids	HK	HK18110967.8	Hong Kong Application filed 8/24/18; awaiting grant of related EP application
Smartphone Enabled Urinalysis Devise, software and Test Platform	US	15/560,989	Filed 9/22/17; preliminary amendment filed 9/28/17; awaiting first office action
Smartphone Enabled Urinalysis Devise, software and Test Platform	CA	2979864	Application filed 9/14/17; request for examination due 3/23/21
Smartphone Enabled Urinalysis Devise, software and Test Platform	EU	EP167695572.5	Application Filed 10/10/2017; response to extended search report filed 5/8/19; awaiting first exam report
Smartphone Enabled Urinalysis Devise, software and Test Platform	JP	2017-549797	Application filed 09/19/2017; request for exam due 03/23/2019; exam requested with amended claims; awaiting first exam report
Smartphone Enabled Urinalysis Devise, software and Test Platform	MX	MX/a/2017/012095	Filed 9/25/17

Smartphone Enabled Urinalysis Devise, software and Test Platform	HK	HK 18109765.4	Filed 7/27/18
Stress and Inflammation Biomarker Urine Panel for Dairy Cows and Beef Cattle	US	14/904,274	Application filed 1/11/16; response to restriction requirement due 2/17/18 (4 month date); response filed 3/19/18; office action received 10/23/18; office action response filed 2/25/19; information disclosure filed and received 3/21/19; final rejection received 06/05/19; response filed 12/3/19; REC file 12/5/19; all inventors assignments filed
Systems and Methods for Monitoring an Individuals' Health	Taiwan	108127757	Filed 8/5/19; POA filed
Systems and Methods for Monitoring an Individuals' Health	US	PCT/US19/44956	CIP PCT filed 8/2/19

Title	Country	Patent/Application Number	Status
Rapid Health Assessment System, Device, and Method	US	62/667,916	Provision application filed 5/7/18; declaration and assignment filed 05/24/18
Wellness Panel for Companion Animals	US	14/916,068	US national phase based on PCT/US14/53836; office action received 4/20/18; office action response to restriction filed 6/4/18; office action received; office action response filed 3/26/19; office action received 7/11/19; office action response filed 1/7/2020

Regulation

ZIVO Algal Products & Derivatives

General Regulatory Framework

In the United States and in any foreign market we may choose to enter, our products are subject to extensive governmental regulations.

In the United States, these laws, regulations and other constraints exist at the federal, state and local levels and at all levels of government in foreign jurisdictions. The majority of these regulations directly relate to (1) the formulation, clinical testing, manufacturing, packaging, labeling, distribution, sale and storage of our products and (2) product claims and advertising, including claims and advertising by us, as well as claims and advertising by distributors for which we may be held responsible.

U.S. product classification

In the U.S., the formulation, testing, manufacturing, packaging, storing, labeling, promotion, advertising, distribution and sale of our products are subject to regulation by various governmental agencies, primarily the FDA and the Federal Trade Commission ("FTC"). Our activities also are regulated by various agencies of the states and localities and foreign countries in which our products are manufactured, promoted, distributed and sold. The FDA, in particular, regulates the formulation, manufacture and labeling of conventional foods, dietary ingredients and dietary supplements (or nutraceuticals).

The FDA is responsible for the oversight of all foods (including dietary supplements), drugs, cosmetics and medical devices in the United States. To the extent that we manufacture finished products for sale to consumers (and in certain other limited circumstances where we sell our product as an ingredient), FDA regulations require us to comply with current good manufacturing practice ("cGMP") regulations for the preparation, packing and storage of dietary supplements. This is a complex series of regulations that have posed significant compliance challenges to the supplement industry. To the extent that we supply our products as ingredients for the use in foods or nutraceuticals, we would be required to comply with cGMP regulations for foods, as well as the provisions of the Food Safety Modernization Act of 2011 which require all companies involved in the production of food and food ingredients to develop and implement a Hazard Analysis and Critical Control Point program.

The Dietary Supplement Health and Education Act of 1994 ("DSHEA") revised the provisions of the Federal Food, Drug and Cosmetic Act by recognizing "dietary supplements" as a distinct category of food and, we believe, is generally favorable to the dietary supplement industry. The legislation grandfathered, with some limitations, dietary ingredients that were on the market before October 15, 1994. A dietary supplement that contains a dietary ingredient that was not on the market before October 15, 1994 will require evidence of a history of use or other evidence of safety establishing that it is reasonably expected to be safe. To the extent that we offer for sale unique, proprietary ingredients we will be required to file with the FDA evidence supporting the conclusion that we have a "reasonable expectation" that they will be safe for human consumption when used as directed. The FDA recently published an "Advance Notice of Proposed Rulemaking" which the nutraceutical industry believes will substantially increase the level of evidence required to satisfy the "reasonable expectation" standard.

DSHEA provides for specific nutritional labeling requirements for dietary supplements. DSHEA permits substantiated, truthful and non-misleading statements of nutritional support to be made in labeling, such as statements describing general well-being from consumption of a nutraceutical ingredient or the role of a nutrient or dietary ingredient in affecting or maintaining structure or function of the body. A company making a statement of nutritional support must possess adequate substantiating scientific evidence for the statement, disclose on the label that the FDA has not reviewed the statement and that the product is not intended to mitigate, treat, cure or prevent disease, and notify the FDA of the statement within 30 days after its initial use. To the extent we produce finished product for use by consumers as nutraceuticals, we will be required to comply with these provisions of DSHEA.

Labeling and advertising regulations

We may market one or more of our products as a conventional food or for use as an ingredient in conventional foods. Within the U.S., this category of products is subject to the Nutrition, Labeling and Education Act ("NLEA") and regulations promulgated under the NLEA. The NLEA regulates health claims, ingredient labeling and nutrient content claims characterizing the level of a nutrient in the product. The ingredients added to conventional foods must either be GRAS or be approved as food additives under FDA regulations.

The FTC, which exercises jurisdiction over the advertising of our product, has for years instituted enforcement actions against companies marketing supplements for alleged false, misleading or unsubstantiated advertising of some of their products. The FTC has specific guides for advertising claim substantiation as well as for the use of testimonials. As a general matter, companies making health related claims for their products or ingredients are required to possess well designed human clinical studies supporting such claims at the time they are made. Enforcement actions have often resulted in consent decrees and significant monetary payments by the companies involved. In addition, the FTC has increased its scrutiny of the use of testimonials which we have and may in the future utilize.

International regulations of our products

In many foreign markets in which we may choose to offer our products for sale, we may be required to obtain an approval, license or certification from the relevant country's ministry of health or comparable agency. This would hold true for jurisdictions such as Canada, the European Union, Japan, Australia and New Zealand. The approval process generally requires us to present each product and product ingredient to appropriate regulators for review of data supporting safety as well as substantiating any claims we may desire to make. We would also be required to comply with product labeling and packaging regulations that vary from country to country. Our failure to comply with these regulations could prevent our products from being legally offered for sale.

California Proposition 65

California's Safe Drinking Water and Toxic Enforcement Act of 1986, also known as Proposition 65, provides that no person in the course of doing business shall knowingly discharge or release a chemical known to the state to cause cancer or reproductive toxicity into water or into land where such chemical passes or probably will pass into any source of drinking water, without first giving clear and reasonable warning. Among other things, the statute covers all consumer goods (including foods) sold in the State of California. Proposition 65 allows private enforcement actions (sometimes called "bounty hunter" actions). While we intend to take appropriate steps to ensure that any of our products that we may market will be in compliance with the Act, given the nature of this statute and the extremely low tolerance limits it establishes (well below federal requirements), there is a risk that we, our contracted producer or a licensee could be found liable for the presence of miniscule amounts of a prohibited chemical in our product. Such liability could be significant.

General

To the extent dictated by our research partners, we will continue to produce research-only feedstock for chemical analysis, safety studies and efficacy studies compliant with applicable state and federal regulations. However, we will rely on our research partners to conduct their respective R&D programs in a manner compliant with applicable regulation and law. Once a product concept has been fully developed, we intend to manufacture that product, either internally or on a contract basis. We intend to adhere to all state and federal food safety and food manufacturing regulations for applicable product categories, and to produce our algal biomass in compliance with standards set forth in our GRAS dossier. In either case, we intend to adhere to all state and federal regulations relative to the safety and efficacy of the product application, as well as relevant regulations covering the safe and consistent manufacture of that product.

Compliance

In November 2018, we affirmed GRAS status for use as a plant-based ingredient for human consumption. We are in the process of affirming poultry GRAS status and expect that approval in mid-2020. We have completed a number of studies relating to the poultry production that supports good animal nutrition. These studies are being performed in conjunction with our licensing partner, NutriQuest, a global innovator in animal nutrition. In the EU, the ZIVO algal biomass has been classified as an animal feed material and testing in the EU has commenced. With appropriate funding, we can move forward with human food ingredient compliance in 2020 utilizing all or most of the US FDA GRAS dossier.

Wellmetrix

We have worked to make the Wellmetrix testing systems compliant with existing FDA regulations and to that end retained FDA counsel and a medical device consulting firm, which have advised us as to the most time and cost-efficient path to classification and approvals. This activity will be reactivated upon availability of additional funding.

Research and Development

ZIVO Bioscience, Inc.

Research

Our algal culture has been subjected to product testing in its original form over several years, beginning in 2004. In spring of 2009, we undertook a research and development process with a view to fractioning the existing product into much smaller, concentrated groups of molecules with similar physical properties. These groups were then tested *in vivo* and *in vitro* with successful results noted in maintaining healthy cholesterol levels. A patent application describing a novel method of cholesterol regulation was submitted to the USPTO in spring of 2010 and a PCT filing was submitted in February of 2011.

Since January 2012, we continue to develop our research programs internally and direct outside academic researchers, private laboratories or contract research organizations to conduct experiments, tests and studies on our behalf. We spent approximately $2,206,000 for the year ended December 31, 2019 on research and development, as compared to $2,798,000 in 2018. The resources were spent on external research, mainly to independent facilities involved in the analysis and validation of our bioactive compounds in various applications and animal models. To date, all of these amounts have been directly expensed as they have been incurred.

Beginning in March 2016, the Company moved forward with the following R&D initiatives

- Continuing a large-scale bovine mastitis study utilizing samples validated*in vitro* by the principal researcher at the University of Wisconsin - Madison and further validated in vivo by other researchers in the fall of 2016. The pre-pilot and pilot arms of this study have been completed. The primary arm of the study was delayed in 2018 due to inconsistencies in the testing sample, availability of research facilities, and delays in the analytical process. The primary study arm or a portion thereof is expected to commence in Q1 2019. The analytical work that must occur in tandem required the addition of new research resources in order to complete such work in a timely manner.

- A study utilizing cadaver cartilage and joint tissue at the Comparative Orthopaedics Laboratory located at the University of Missouri showed positive early results for protective effects in canine joint health, using our natural bioactive compounds. The study will be repeated and expanded when capital funding is made available.

- A canine whole blood experiment was conducted at an international contract research organization to study the effects of our natural bioactive compounds on inflammatory cytokines and chemokines present in blood to assess whether a systemic or localized mechanism of action can be determined. Although the results trended in a positive direction, Company principals determined that a more definitive *in vivo* study would be more useful. Such study is expected to be conducted when capital funding is available.

- The ongoing elucidation and characterization of the natural bioactive compounds had undergone a data integrity review in early 2014. Further work to develop a more comprehensive understanding of the bioactives had been placed on hold since spring of 2014 pending available funding. In mid-March 2016, the Company re-activated the elucidation and characterization as funding became available. Several university and privater laboratories were contracted to conduct isolation, and fractionation, followed by bioassays or in vivo studies to validate the bioactivity of the purified and isolated samples, with work ongoing at the close of 2019.

- Beginning in spring 2017, we contracted with the National Center for Natural Products Research at the University of Mississippi, the Boston Institute of Biotechnology, the Donald Danforth Plant Science Center, Elicityl SA, and other research facilities to accelerate the elucidation and characterization of the bioactive compounds present in the algal biomass, with the intent to converge these findings with the in vivo validation conducted for treatment of bovine mastitis, and present this body of work to Zoetis and effectively start the clock on the 90-day evaluation period. Such work resulted in the characterization of numerous bioactive compounds, which requires additional screening and validation to separate bioactives pertinent to bovine mastitis from those pertinent to other human and animal models.

- Beginning in fall 2016, we commenced a significant number of tests to determine the nutritional composition of the algal biomass, its toxicity, genetic mutagenicity, bacterial count and other safety measures for successive batches of biomass produced at AzCATI and other producers to establish consistent production and repeatability in anticipation of GRAS approvals. These tests form the basis for safety and stability claims as part of the requirement to meet GRAS standards applicable to both human and poultry uses.

- As mentioned previously, 2019 saw a decrease in R&D spending and the active recruitment of algae growers in India and Peru, as well as other parts of the world. We engaged an outside consultant to advise us on outsourcing algae production and to develop our internal and external organizational structures to support a global supply chain in anticipation of a market launch in early 2020 pending availability of biomass from contracted growers In addition, we worked closely with our animal feed partner NutriQuest to conduct initial trials and analyses of a potential poultry feed ingredient, with good results. The FDA compliance effort for a poultry feed ingredient is still underway and is expected to dovetail with product availability in mid-2020.

The purposes for these various tests and experiments are manifold: We are not only isolating bioactive molecules, but also testing the method of isolation and then validating that the isolated molecules retain their bioactivity across a select range of human and animal cell lines, and that these molecules exhibit no deleterious effects before they are introduced into humans or animals during *in vivo* studies. We must ensure that this does not occur occasionally, it is required for every production process, every safety validation process and every intended application, such as a canine dietary supplement that is mixed with food, as opposed to a canine dietary supplement that is administered in the form of a chewable caplet.

As of late 2019, as we enter production scale-up, we are required to provide cGMP protocols and Quality Assurance ("QA") protocols that show we can produce the algal biomass and/or the active ingredients safely, consistently and in defined quantities, and therefore rely on these same experiments and methods to substantiate our quality claims. These datasets form the basis for establishing the value of a license agreement. Therefore, every single license that we hope to issue requires its own data set and safety validation for the specific application being licensed. These datasets represent the core of the intellectual property that is being licensed.

Status of Culturing and Production

Independent of identifying the bioactive compound(s) or validating their bioactivity and safety is the process and method of growing and maintaining the algal culture that gives rise to various nutritional and bioactive compound(s) in the first place. This culture and its growing environment were developed decades ago. However, the method was not commercially viable, and the Company has expended considerable resources to develop a single-species, high-volume and commercially viable production methodology.

We made the decision to spread product development risk, resulting in the creation of a product platform strategy whereby four different forms could be developed for future marketing across several categories and applications:

a) the raw algae biomass, which would naturally contain various nutritional and beneficial compounds;

b) a more refined extraction which could be introduced into animal feed or supplements;

c) the isolated natural molecule(s) which could be more appropriate for human consumption in food or supplements; and

d) the synthetic version of any such natural molecule(s) which could be licensed to drug development companies or joint-ventured in a risk-sharing arrangement.

To that end, we contracted with several experts in the field to coordinate isolation of the different organisms present in the culture, grow each of them separately and then subject them to the same life-cycle stressors as the original culture. The stated goal was to grow algae in bulk as a direct source of micro-nutrition and feed ingredient for production animals, namely poultry, beef cattle and dairy cows, as well as companion animal dietary supplementation. The production capability would be licensed or contracted to others. Per the business model, we have no intention of fielding a finished product, but rather coordinating licensees and entering into supply agreements with larger, better-financed brand names or licensing directly with such brand names. There can be no assurance that commercially viable products will be developed, or that they can be successfully and profitably manufactured and marketed.

Over the last several years, our contracted researchers were able to successfully isolate one or more algal species, scale up the production/output of the isolated species and still retain some of the key, desirable bioactive properties associated with the earlier, complex culture. Proof of concept growing techniques, including both pond and bioreactor modes, showed that our target algal specie can be grown in commercially viable quantities, and the harvest time was compressed from several weeks to several days' time. We are uncertain if we can grow biomass in sufficient tonnage for livestock feed, but we believe that the current production methods will allow us to satisfy demand for a more refined product introduced into animal feed and into human supplements as global production capacity ramps up.

In 2018, we updated Standard Operating Procedures ("SOPs") in order to draft contractual terms with contract growers domestically and abroad. The SOPs form the basis for current Good Manufacturing Practice ("cGMP") protocols to which contract growers and processors must adhere as part of the FDA's updated Food Safety Modernization Act of 2011 requirements, regardless of country of origin. We conducted experiments in post-processing, such as spray-drying centrifugal water extraction and other techniques to better understand feed and food handling requirements. We contracted the Burdock Group of Orlando, Florida in summer of 2016 to manage the compliance process on our behalf and we affirmed GRAS self-affirmation in November 2018.

Looking Forward

A significant portion of our research efforts have been directed towards identifying a candidate "class of compound" and one or more "active ingredients," as it relates to autoimmune and anti-inflammatory response. These are very broad categories and work is still required to fully describe the 3D structure of such compounds to fully realize their potential licensing value. One approach among several we've taken is to create synthetic homologs, and from them deduce the composition and 3D structure of the naturally bioactive compounds.

Subject to the availability of sufficient funding, we estimate that we will, in fiscal 2020, be required to expend in excess of $5,000,000 on research and subsequent product development and manufacturing in order to complete the initiatives discussed herein. In addition to the activity in 2020, we plan to continue our research and development efforts as well as manufacturing feed and food products in 2020 and beyond. These expenditures will need to be met from external funding sources as well as revenues we intend to receive. In the past, we have had difficulty raising funds from external sources. Thus, we may not be able to raise the funding required to continue our research and development activities. In the event that these sources are not available or adequate to meet our research needs, we will be unable to pursue our research activities, in which case our ability to substantiate the accumulated intellectual property with objective clinical support for its characterization, method of action and efficacy will continue to be impeded, thereby severely hindering our ability to generate licensing revenue (or otherwise commercialize our products) and adversely affect our operating results.

In the event that we are successful in raising the necessary capital, we will continue our current research program with our research partners, we will expand our investigations to include various experts and consultants on an as-needed basis and explore new product concepts and applications. Our current contracts with our research partners cover the following activities:

- Ongoing isolation and characterization of individual natural molecules from various production formats in sufficient quantities for downstream analyses, experiments, standards development, compliance, cGMP and QA protocols, whether as the basis for feed or food applications, as a lead compound for a synthetic therapeutic, or as a medical food or botanical drug

- Ongoing validation of samples in vivo and in vitro to substantiate efficacy and safety for each specific application or claim, i.e., bovine mastitis, poultry nutrition, health, canine osteoarthritis, canine joint health, porcine respiratory/reproductive syndrome, etc., to boost value for each specific license or market vertical

- Synthetic development/validation of individual molecules to boost value of licenses, likely to be conducted by others, either as licensees or joint ventures

- Ongoing validation of samples in vivo and in vitro for standards development, FDA safety compliance, cGMP and QA protocols

- Product development initiatives such as the joint development project with NutriQuest to develop a successful poultry feed ingredient; the project with NutriChipz to develop products in the functional food market; the project with Dr. Steven K. Grekin to develop skin health, with other partners, to develop a protein enhancement ingredient for vegan drinks and smoothies as well as a human dietary supplement formulation

All of the above activities need to continue in parallel in order to arrive at marketable products or licenses, and our ability to undertake all such activities is subject to our receipt of additional funding. Ancillary development activities would occur in parallel with our research partners.

Development

Wellmetrix

Wellmetrix was initially focused on large-scale, programmatic applications of its testing and reporting platform. We are interested in supporting the intervention by wellness consultants or medical professionals in the lifestyle choices made by individuals covered by traditional health insurance plans, retiree medical benefits pools, employer-sponsored health initiatives and taxpayer-sponsored programs like Medicaid and the ACA (Affordable Care Act) or its proposed replacement. These interventions, which are typically pre-clinical, have been shown to be successful in delaying the onset of chronic diseases such as diabetes or cardiovascular problems. We believe that targeting asymptomatic individuals and focusing intervention efforts on these individuals may have a positive result for wellness programs, and potentially lower premiums and health claims. We spent approximately $101,000 for the year ended December 31, 2019 on research and development, as compared to $17,000 in 2018. The resources were spent on external research.

At the close of 2015, the Wellmetrix product platform required additional prototype analyzers and additional dry chemistry reagent strips and cartridges to conduct pilot programs for potential customers, and to use the results of these pilot programs to help normalize data for the dry chemistry reagents as part of the FDA submission package.

In early 2016 we refocused product development on self-monitoring of individual health, primarily focused on those individuals who purchase dietary supplements, join health clubs or are otherwise actively pursuing a healthy lifestyle. Since that time, we have redeveloped the sample collection device, the analyzer and the mobile software application to better serve the needs of the consumer, rather than a workplace wellness provider. In 2018, we completed CAD design of all key components, conducted finite element analysis of the sample collection device to make sure that it functioned as intended and prepared CAD files for low-volume tooling of key components. We successfully obtained a US patent in December 2018 for the core technology – a multianalyte Wellness Panel, US Patent No. 10,161,928. We did not have the financial or scientific resources to complete all aspects of the testing assay, which requires additional development before it is ready for production, or the mobile software application, pending available funding. Estimated funding required to successfully launch the technology is expected to reach $12 million.

In mid-2019, we entered negotiations with Dutch multinational DSM to apply Wellmetrix testing technology to two premier functional food ingredients manufactured by DSM. A Research and Development Agreement was entered into with DSM in the third quarter of 2019 and a large clinical trial using the Wellmetrix Wellness Panel platform has been planned for mid-2020. As part of the contracted work, Wellmetrix is obliged to gear up its operations to run the clinical trial and manufacture sufficient testing material and test components to conduct the clinical trial. This will require new funding, but it does represent the first revenue opportunity for the company and therefore efforts are focused on moving forward with this relationship.

The company filed a trademark for “Wellmetrix” and purchased the ICANN domain www.wellmetrix.com and www.wellmetrix-bts.com and registered “Wellmetrix” as an LLC in the state of Delaware.

Compliance with Environmental Laws

We believe that we are, in all material respects, in compliance with local, state, and federal environmental laws applicable to our production and waste disposal. The cost of this compliance activity to date has not been material and has been absorbed within our general operations overhead.

Employees

As of December 31, 2019, we had five full-time employees, four of whom are positioned in executive management. In addition, we have two part-time people acting on a consulting basis in administrative roles. We believe that our employee relations are good. No employee is represented by a union.

Corporate Communications and Available Information

We maintain our website www.zivobioscience.com and provide a toll-free number (888) 871-6903. The content of our website is not incorporated by reference into this Form 10-K and should not be considered part of this report or any other filing we make with the SEC. We file annual, quarterly and current reports, and other information with the Securities and Exchange Commission. Our filings with the SEC can be viewed at www.sec.gov.

Wellmetrix maintains a separate website: www.wellmetrix.com and provides the same toll-free number as ZIVO Bioscience on its website.

Item 1A. Risk Factors.

There is substantial doubt about our ability to continue as a going concern. Our independent registered public accounting firm has issued an opinion on our consolidated financial statements which states that the consolidated financial statements were prepared assuming we will continue as a going concern and further states that our recurring losses from operations, stockholders' deficit and inability to generate sufficient cash flow to meet our obligations and sustain our operations raise substantial doubt about our ability to continue as a going concern.

We are materially dependent on external sources for continued funding. Unless and until we realize licensing and royalty revenues sufficient to cover our expenses, we will be reliant upon external sources to fund our continued operations. We estimate that we will require approximately $6,000,000 in cash over the next 12 months in order to fund our normal operations and to fund our research and development initiatives. There is no guarantee that we will receive this funding. If we are unable to raise additional funds, there will be a material adverse effect on our business, financial condition and results of operations.

We have 1.2 billion shares authorized for issuance. As of December 31, 2019, we had 394,688,456 shares outstanding. We also had contractual commitments to issue 375,105,341 additional shares as of December 31, 2019, consisting of 75,950,501 common shares issuable upon the conversion of convertible debentures and related accrued interest and 299,154,840 common shares issuable upon the exercise of outstanding options and warrants. This totals a potential 769,793,797 shares outstanding if all debentures were converted and warrants exercised. In order to increase the authorized shares to a higher number, we would need to amend our articles of incorporation, which would require stockholder approval. There is no guarantee that we will be able to obtain the stockholder approval necessary to amend our articles of incorporation to increase our authorized shares.

*Our future success is dependent on our ability to establish strategic partnerships.*We do not have resources to pursue the development, manufacturing and marketing of products on our own, and we will need to rely on third parties for some of these activities. There is no guarantee that we will be able to successfully establish strategic partnerships.

*The ability to market our product is dependent upon the completion of proven, clinical research.*While we are currently undergoing studies to further identify the active ingredients in our products, there is no guarantee that the research will successfully achieve this goal. If our current research does not return the results we expect, our business prospects will be materially and adversely affected.

Government regulation of our products may adversely affect sales. Nutraceutical and animal supplement products, although not subject to FDA approval, must follow strict guidelines in terms of production and advertising claims. Our ability to produce and successfully market our products is dependent upon adhering to these requirements. If we fail to comply with applicable government regulations concerning the production and marketing of our product, we could be subject to substantial fines and penalties, which would have a material adverse effect on our business.

*We have a history of losses, we expect to continue to incur losses and we may not achieve or sustain profitability in the future.*We have incurred losses in each fiscal year of our existence. We cannot assure you that we will reach profitability in the future or at any specific time in the future or that, if and when we do become profitable, we will sustain profitability. If we are ultimately unable to generate sufficient revenue to meet our financial targets, become profitable and have sustainable positive cash flows, investors could lose their investment.

Competition from current competitors and new market entrants could adversely affect us. We compete with a wide range of established companies in a variety of different markets, all of whom have substantially greater name recognition and resources than we do. We face or will face other specialized competitors if we are able to expand into new vertical markets. These competitors may be more efficient and successful than we are. If we fail to compete successfully, our operating results and financial condition will be materially adversely affected.

Changes in laws and/or regulations may cause our business to suffer. The future success of our business depends upon our ability to meet regulatory requirements for the sale of our products. Increased enforcement of existing laws and regulations, as well as any laws, regulations, or changes that may be adopted or implemented in the future, could limit our ability to market our products.

The loss of key employees and technical personnel or our inability to hire additional qualified personnel could have a material adverse effect on our business. Our success depends in part upon the continued service of our senior management personnel. Our success will also depend on our future ability to attract and retain highly qualified technical, managerial and marketing personnel. The market for qualified personnel has historically been, and we expect that it will continue to be, intensely competitive. We cannot assure you that we will continue to be successful in attracting or retaining such personnel. The loss of certain key employees or our inability to attract and retain other qualified employees could have a material adverse effect on our business.

We could incur substantial costs as a result of any claim of infringement of another party's intellectual property rights. In recent years, there has been significant litigation in the U.S. and elsewhere involving patents and other intellectual property rights. Companies are increasingly bringing and becoming subject to suits alleging infringement, misappropriation or other violations of patents, copyrights, trademarks, trade secrets or other intellectual property rights. These risks have been amplified by an increase in the number of third parties whose sole or primary business is to assert such claims. We could incur substantial costs in prosecuting or defending any intellectual property litigation. Additionally, the defense or prosecution of claims could be time-consuming and could divert our management's attention away from the execution of our business plan.

We cannot be certain that our products do not infringe the intellectual property rights of third parties. Claims of alleged infringement or misappropriation could be asserted against us by third parties in the future. We cannot be sure that we would prevail against any such asserted claim.

Moreover, any settlement or adverse judgment resulting from a claim could require us to pay substantial amounts or obtain a license to continue to use the technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology. We cannot assure you that we would be able to obtain a license from the third patty asserting the claim on commercially reasonable terms, that we would be able to develop alternative technology on a timely basis, or that we would be able to obtain a license to use a suitable alternative technology to permit us to continue offering, and our customers to continue using, our affected products or technology. In addition, we may be required to indemnify our customers for third-party intellectual property infringement claims, which would increase the cost to us. An adverse determination could also prevent us from offering our products or services to others. Infringement claims asserted with or without merit against us may have an adverse effect on our business, financial condition and results of operations.

If we are required to make substantial payments or undertake any of the other actions noted above as a result of any intellectual property infringement claims against us or any obligation to indemnify our customers for such claims, such payments or costs could have a material adverse effect upon our business and financial results. Even if we are not a party to any litigation between a customer and a third party, an adverse outcome in any such litigation could make it more difficult for us to defend our technology in any subsequent litigation in which we are a named party. Moreover, such infringement claims with or without merit may harm our relationships with our existing customers and may deter others from dealing with us.

We may not be able to adequately protect our intellectual property rights and efforts to protect them may be costly and may substantially harm our business. Our ability to compete effectively is dependent in part upon our ability to protect our intellectual property rights. While we hold seven issued patent and pending patent applications covering certain elements of our technology, these patents, and, more generally, existing patent laws, may not provide adequate protection for portions of the technology that are important to our business. In addition, our pending patent applications may not result in issued patents.

U.S. patent, copyright, trademark and trade secret laws offer us only limited protection and the laws of some foreign countries do not protect proprietary rights to the same extent. Accordingly, defense of our trademarks and proprietary technology may become an increasingly important issue as we seek to expand our product development into countries that provide a lower level of intellectual property protection than the U.S. Policing unauthorized use of our trademarks and technology is difficult and the steps we take may not prevent misappropriation of the trademarks or technology on which we rely. If competitors are able to use our trademarks or technology without recourse, our ability to compete would be harmed and our business would be materially and adversely affected.

We may elect to initiate litigation in the future to enforce or protect our proprietary rights or to determine the validity and scope of the rights of others. That litigation may not be ultimately successful and could result in substantial costs to us, the reduction or loss in intellectual property protection for our technology, the diversion of our management's attention and harm to our reputation, any of which could materially and adversely affect our business and results of operations.

We do not anticipate paying any dividends on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. If we do not pay cash dividends, you could receive a return on your investment in our common stock only if the market price of our common stock has increased when you sell your shares.

*Substantial future sales of our common stock in the public market could cause our stock price to fall.*Sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could cause the market price of our common stock to decline and impede our ability to raise capital through the issuance of additional equity securities. We have outstanding warrants and convertible debt that may result in substantially more outstanding shares, which could cause the price of our common stock to decline.

Sales Risk – Wellmetrix products. We have not finished developing our products or sold any products. We have only begun test marketing. We cannot be assured that there is a sufficient market demand for our products. In addition, while we are actively pursuing the relationships necessary to begin manufacturing and marketing the Wellness Tests, we have not yet finalized agreements with potential business partners, including third-party resellers, labs or distributors of the Wellness Tests. Failure to secure these critical alliances on reasonable terms could negatively impact us, our business and future plans.

Dependence on Manufacturers. We do not own or operate, and currently do not plan to own or operate, manufacturing facilities for production of tests or devices which are critical to the successful operation of the business. We plan to target manufacturers and to form alliances for the mass production of our products, but we have no assurance that such alliances will be established. Furthermore, once we enter into such relationships, we may not have sufficient long-term agreements with any third-party manufacturers to ensure adequate supply and price controls. This may result in delays, quality control issues, additional expenses, and failure to meet demand or other customer obligations or needs.

Failure of Manufacturers to Meet Design Specifications. The success of our products is contingent upon one or more third parties manufacturing products according to design specifications. In practice, this is difficult to enforce and guarantee. As a result, we may never realize the expected efficiency, quality or sensitivity of our products and, as a result, may be required to continue research and development with another manufacturer. If a joint venture partner or contractor fails to meet design specifications, we will experience delays in commencing operations or delays in fulfilling orders in the future. Such delays could have a material adverse impact on our financial condition.

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.

Item 1B. Unresolved Staff Comments.

Not required for smaller reporting companies.

Item 2. Properties.

We lease 500 square feet in Bloomfield Hills, Michigan and 2,000 square feet in Keego Harbor, Michigan on a month to month basis to serve as the headquarters of our company. We also lease 820 square feet in Plymouth, Michigan for our laboratory operations. The combined monthly rent is $7,600.

Item 3. Legal Proceedings.

From time to time we are involved in litigation incidental to our business.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5.Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock is quoted on the OTC Market ("OTCQB") administered by FINRA under the symbol "ZIVO." The following table sets forth the range of high and low bid information as reported on the OTCQB by quarter for the last two fiscal years. These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

Year ended December 31, 2018

	HIGH	LOW
First Quarter	$ 0.12	$ 0.07
Second Quarter	0.18	0.08
Third Quarter	0.19	0.11
Fourth Quarter	0.17	0.12

Year ended December 31, 2019

	HIGH	LOW
First Quarter	$ 0.14	$ 0.10
Second Quarter	0.14	0.09
Third Quarter	0.12	0.07
Fourth Quarter	0.17	0.07

Holders

As of December 31, 2019, we had 212 shareholders of record.

We have not paid any dividends on our common stock during the last two fiscal years, due to our need to retain all of our cash for operations. We do not anticipate paying any cash dividends on our common stock for the foreseeable future.

Recent Sales of Unregistered Securities.

During the three months ended March 31, 2019, we issued 1,500,000 shares of common stock valued at $150,000. We issued 4,649,291 shares in connection the conversion of related party loans of $464,929.

During the three months ended June 30, 2019 we issued 12,020,000 shares of common stock valued at $1,202,000. We issued 143,447,677 shares in connection the conversion of debt of $12,080,298 and related accrued interest of $2,264,470.

During the three months ended September 30, 2019 we issued 12,980,000 shares of common stock valued at $1,298,000. We issued 3,118,359 shares in connection the conversion of related party loans of $176,405 and related accrued interest of $135,431.

During the three months ended December 31, 2019, we issued 9,688,917 shares of common stock valued at $982,017 We issued 29,295,827 shares in connection the conversion of debt of $2,180,000 and related accrued interest of $749,583.

The Company believes that the foregoing transactions were exempt from the registration requirements under Rule 506 of Regulation D promulgated under the Securities Act of 1933, as amended ("the Act") or Section 4(a)(2) under the Act, based on the following facts: in each case, there was no general solicitation, there was a limited number of investors, each of whom was an "accredited investor" (within the meaning of Regulation D under the Act, as amended) and/or was (either alone or with his/her purchaser representative) sophisticated about business and financial matters, each such investor had the opportunity to ask questions of our management and to review our filings with the Securities and Exchange Commission, and all shares issued were subject to restrictions on transfer, so as to take reasonable steps to assure that the purchasers were not underwriters within the meaning of Section 2(11) under the Act.

Item 6. Selected Financial Data.

Not required for smaller reporting companies.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Overview

For ZIVO, we have put in place a business model in which we would 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 Wellmetrix, we are developing, with the intention to manufacture, market, and sell tests, that we believe will allow people to optimize their health and identify future health risks. We plan to develop and commercialize such tests in three phases:

- In phase one ("Phase One") or, alternately named Gen 1.0, we plan to develop and commercialize a series of tests, which are intended to measure indicators of good health and optimal metabolic function (collectively, the "Phase One Test"). The Phase One Test is being designed to measure biomarkers related to oxidative stress, inflammation, and antioxidant status to establish a metabolic assessment from which intervention can commence, and from which metabolic syndrome can be inferred. A patent that covers this particular combination of biomarkers was issued December 25, 2018.

- In phase two ("Phase Two") or alternately named Gen 1.5, we plan to develop and commercialize a testing technology focused on the positive or negative metabolic effects of metabolizing fat and muscle efficiency due to changes in diet, exertion, hydration and dietary supplements in a self-administered format that integrates with smartphone operating systems.

- In phase three ("Phase Three") or alternately named Gen 2.0, we plan to develop and commercialize additional tests intended to provide a more complete metabolic profile for an individual utilizing the metabolites present in urine. The Company believes the Gen 2.0 tests, in aggregate, will allow identification of healthy versus unhealthy bodily processes in real-time. This technology can also be applied to livestock and companion animals. As capital funding becomes available, the Company will move forward with finalizing its transition cow syndrome test, for which a provisional patent application has already been filed.

The Wellmetrix technology also incorporates sophisticated software to analyze, report, record and manage wellness and health data for large groups such as large employers, pension funds, accountable care organizations, state Medicaid agencies and their actuarial consultants, underwriters, re-insurers and wellness consultants. The software also contains tools to conduct meta-analysis of baseline health benchmarks and monitor the progress of pre-clinical intervention programs within large groups.

Results of Operations for Years Ended December 31, 2019 and 2018 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 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 $508,000 from the prior period can be attributed to a decrease in available funding. We expect external research and development 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 our Wellmetrix, LLC subsidiary, we incurred approximately $101,000 and $17,000 in research and development expenses for the year ended December 31, 2019 and 2018, 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 $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 (a related party) over the course of 2019, 3) 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

The consolidated financial statements contained in this report have been prepared on a "going concern" basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. For the reasons discussed herein, there is a significant risk that we will be unable to continue as a going concern, in which case, you would likely suffer a total loss of your investment in our company.

As of March 23, 2020, we had cash in the bank of $14,000. We have incurred significant net losses since inception, including a net loss of approximately $11,427,000 during the year ended December 31, 2019. We have, since inception, consistently incurred negative cash flow from operations. During the year ended December 31, 2019, we incurred negative cash flows from operations of approximately $3,707,000. As of December 31, 2019, we had a working capital deficiency of $8,338,483 and a stockholders' deficiency of $8,338,483. Although we recently raised a limited amount of capital, we have a near term need for significant additional capital. These factors raise substantial doubt about the Company's ability to continue as a going concern.

During the year ended December 31, 2019, our operating activities used approximately $3,707,000 in cash, compared with $5,007,000 in cash during the comparable prior period. The approximate $1,300,000 decrease in cash used by our operating activities was due primarily to the following (all of which are approximated): a $3,209,000 decrease in net loss, an increase of $542,000 in cash expense offset by a decrease in non-cash expenses of $2,451,000. The $542,000 of increase in cash expense was due to the following: an increase of accounts payable of $1,113,000, an increase of prepaid expenses of $7,000, offset by a decrease of $578,000 in accrued liabilities (mainly composed of the decrease in accrued interest).

During the years ended December 31, 2019 and 2018, there were no investing activities.

During the years ended December 31, 2019 and 2018, our financing activities generated $3,665,000 and $5,078,000 in cash, respectively. The decrease of $1,413,000 was primarily related to a net increase of proceeds of $199,000 from issuance of common stock and exercise of common stock warrants, an increase of $250,000 in net loans from related parties, an increase in deferred finance costs of $107,000 offset by a decrease of $1,969,000 from issuance of convertible debentures.

Although we raised a limited amount of capital during 2019, 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 research and development program.

We estimate that we will require approximately $6,000,000 in cash over the next 12 months in order to fund our normal operations and to fund our research and development 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; however, we recently were able to raise a limited amount of capital from outside sources. If we are unable to raise the required capital, we will be forced to curtail our business operations, including our research and development activities.

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.

Seasonality

Based on our implemented business model, anticipated income streams will be generated from the following:

a) For ZIVO, (i) royalties and advances for licensed natural bioactive ingredients, isolated natural compounds and synthetic variants thereof, and (ii) bulk sales of such ingredients;

b) For Wellmetrix, the (i) sale of wellness tests and data services related to medical records management and (ii) analysis/compilation of data gathered on behalf of payers. For insurers, the primary selling season is November through April of any given year.

We do not anticipate that these will be affected by seasonality.

Staffing

We have conducted all of our activities since inception with a minimum level of qualified staff. We currently do not expect a significant increase in staff.

Off-Balance Sheet arrangements

We have no off-Balance Sheet arrangements that would create contingent or other forms of liability.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Not required for smaller reporting companies.

Item 8. Financial Statements and Supplementary Data.

Reference is made to the Consolidated Financial Statements, the Reports thereon, and the Notes thereto, commencing on page F-1 of this report, which Consolidated Financial Statements, Reports, Notes and data are incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures. Based on their evaluation as of December 31, 2019, our Chief Financial Officer has concluded that our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, were effective as of the end of the period covered by this report to ensure that the information required to be disclosed by us in this Annual Report on Form 10-K was recorded, processed, summarized and reported within the time periods specified in the SEC's rules and instructions for Form 10-K. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Financial Officer, to allow timely decisions regarding required disclosure.

(b) Management's Annual Report on Internal Control over Financial Reporting. Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined by Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework*. Based on our assessment of those criteria, management believes that the Company maintained effective internal control over financial reporting as of December 31, 2019.

This Management's report is not deemed filed for purposes of Section 18 of the Exchange Actor otherwise subject to the liabilities of that section, unless we specifically state in a future filing that such report is to be considered filed.

(c) Changes in Internal Control over Financial Reporting. There were no changes in our internal control over financial reporting (as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the year ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors and Executive Officers

Incorporated by reference to the Registrant's 2020 Proxy Statement to be filed within 120 days after the Registrant's fiscal year end.

Code of Ethics

We have adopted a Code of Ethics and Business Conduct that defines the standard of conduct expected of our officers, directors and employees. We will upon request and without charge provide a copy of our Code of Ethics. Requests should be directed to Principal Accounting Officer, Zivo Bioscience, Inc., 2804 Orchard Lake Road, Suite 202, Keego Harbor, MI 48320.

Item 11. Executive Compensation

Incorporated by reference to the Registrant's 2020 Proxy Statement to be filed within 120 days after the Registrant's fiscal year end.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Incorporated by reference to the Registrant's 2020 Proxy Statement to be filed within 120 days after the Registrant's fiscal year end.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Incorporated by reference to the Registrant's 2020 Proxy Statement to be filed within 120 days after the Registrant's fiscal year end.

Item 14. Principal Accountant Fees and Services

Incorporated by reference to the Registrant's 2020 Proxy Statement to be filed within 120 days after the Registrant's fiscal year end.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) (1) (2) *Financial Statements.*

Financial Statements are listed in the Index to Consolidated Financial Statements on page F-1 of this report.

All schedules have been omitted because they are not applicable or the required information is included in the Consolidated Financial Statements or Notes thereto.

(3) *Exhibits.*

The Exhibit Index and required Exhibits immediately following the Signatures to this Form 10-K are filed as part of, or hereby incorporated by reference into, this Form 10-K.

SIGNATURES

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

ZIVO BIOSCIENCE, INC.

Date: March 26, 2020

By: */s/ Philip M. Rice II*
Philip M. Rice II
Chief Financial Officer

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

By: */s/ Andrew Dahl*
Andrew Dahl,
Principal Executive Officer CEO, President, Director
March 26, 2020

By: */s/ Philip M. Rice II*
Philip M. Rice II
Chief Financial Officer
March 26, 2020

By: */s/ Christopher Maggiore*
Christopher Maggiore,
Director
March 26, 2020

By: */s/ Nola Masterson*
Nola Masterson,
Director
March 26, 2020

By: */s/ John Payne*
John Payne,
Director
March 26, 2020

By: */s/ Robert Rondeau*
Robert Rondeau,
Director
March 26, 2020

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

	December 31, 2018	December 31, 2019
ASSETS		
CURRENT ASSETS:		
Cash	$ 388,891	$ 346,111
Prepaid Expenses	22,615	23,282
Total Current Assets	411,506	369,393
PROPERTY AND EQUIPMENT, NET	-	-
TOTAL ASSETS	$ 411,506	$ 369,393
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 $-0- 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	22,693,623	8,707,876
LONG TERM LIABILITIES:		
	-	-
TOTAL LIABILITIES	22,693,623	8,707,876
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	(22,282,117)	(8,338,483)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	$ 411,506	$ 369,393

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	6,130,643	8,352,350
LOSS FROM OPERATIONS	(6,130,643)	(8,352,350)
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	(133,537)	(106,900)
Total Other Income (Expense)	(8,504,724)	(3,157,816)
NET LOSS	$ (14,635,367)	$ (11,510,166)
BASIC AND DILUTED LOSS PER SHARE	$ (0.09)	$ (0.04)
WEIGHTED AVERAGE BASIC AND DILUTED SHARES OUTSTANDING	156,678,765	276,396,362

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	Accumulated	
	Shares	Amount	Capital	Deficit	Total
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	-	-	-	(14,635,367)	(14,635,367)
Balance, December 31, 2018	180,036,435	$ 180,037	$ 55,985,626	$ (78,447,780)	$ (22,282,117)
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	-	-	-	(11,510,166)	(11,510,166)
Balance, December 31, 2019	396,736,506	$ 396,737	$ 81,222,726	$ (89,957,946)	$ (8,338,483)

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.

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.

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 $-0- 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,

	2019	2018
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.

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
	100,000	100,000
Less accumulated depreciation and amortization	(100,000)	(100,000)
	$ -	$ -

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 though 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.

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.

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.

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
	29,000,000	9.88		29,000,000	$ 0.10

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%.

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.

EXHIBIT INDEX

Exhibit Number	Title	
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	Description of Securities	*
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)
10.24	Limited License Agreement with NutriQuest dated April 20, 2017	(30)
10.25	Amended and Restated Registration Rights Agreement with HEP Investments, LLC (Lender) and Strome Mezzanine Fund LP dated October 18, 2017	(31)
10.26	Ninth Amendment to Loan Agreement with HEP Investments, LLC dated January 31, 2018	(32)
10.27	Tenth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated January 31, 2018	(33)
10.28	Tenth Amended and Restated Senior Secured Convertible Promissory Note with HEP Investments, LLC dated May 16, 2018	(34)
10.29	Eleventh Amendment to Loan Agreement with HEP Investments, LLC dated May 16, 2018	(35)
10.30+	Amended and Restated Change of Control Agreement dated December 31, 2018	(36)
10.31	Debt Extension Agreement HEP Investments, LLC dated March 29, 2019	(37)
10.32	Debt Conversion Agreement with HEP Investments, LLC dated April 5, 2019	(38)

10.33+	Amended and Restated Employment Agreement with Andrew Dahl, dated as of November 29, 2019	*
10.34+	2019 Omnibus Long-Term Incentive Plan	*
10.35+	Philip M. Rice Employment Letter, dated as of March 4, 2020	*
10.36+	Stock Option Grant Notice for 2019 Omnibus Long-Term Incentive Plan - A. Dahl	*
10.37+	Stock Option Grant Notice for 2019 Omnibus Long-Term Incentive Plan	*
14.1	Code of Ethics	*
21.1	Subsidiaries of the Registrant	*
31.1	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended	*
31.2	Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended	*
32.1	Certification of the Principal Executive Officer pursuant to U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	*
32.2	Certification of the Principal Financial Officer pursuant to U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	*
101.INS	XBRL Instance Document	*
101.SCH	XBRL Taxonomy Extension Schema Document	*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	*
*	Filed herewith.	
+	Indicates management contract or compensatory plan.	

(1) Filed as Exhibit 3.13 to the Registrant's Form 8K filed with the Commission on June 29, 2015 and incorporated herein by this reference.

(2) Filed as Exhibit 3.11 to the Registrant's Form 10Q filed with the Commission on March 25, 2013 and incorporated by this reference.

(3) Filed as Exhibit 3.12 to the Registrant's Form 10Q filed with the Commission on November 14, 2014 and incorporated by this reference.

(4) Filed as Exhibit 3.1 to the Registrant's Form 10Q filed with the Commission on November 14, 2016 and incorporated by this reference.

(5) Filed as Exhibit 3.1 to the Registrant's Form 8-K filed with the Commission on May 7, 2019 and incorporated by this reference.

(6) Filed as Exhibit 3.2 to the Registrant's 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 16, 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 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 8-K filed with the Commission on April 8, 2019 and incorporated by this reference.

(38) Filed as Exhibit 10.2 to Form 8-K filed with the Commission on April 8, 2019 and incorporated by this reference.

Exhibit 4.1

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

The following is a brief description of shares of common stock ("common stock") of ZIVO Bioscience, Inc. (the "Company," "we," "us," or "our"). The brief description is based upon our Articles of Incorporation, including the Certificate of Amendment to our Articles of Incorporation, (as amended, our "Articles of Incorporation"), our Bylaws (our "Bylaws"), and provisions of applicable Nevada law. This summary does not purport to be complete and is subject to, and qualified in its entirety by, the full text of our Articles of Incorporation and Bylaws, each of which is incorporated by reference as an exhibit to our Annual Report on Form 10-K.

GENERAL

Our Articles of Incorporation authorizes us to issue up to 1,200,000,000 shares of capital stock, par value $0.001 per share, of which 396,736,506 shares of common were issued and outstanding as of December 31, 2019. Our Articles of Incorporation authorizes our Board of Directors (our "Board") to determine, at any time and from time to time, the number of authorized shares, as described below.

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

- consideration to be paid by the interested stockholder is at least equal to the highest of: (a) the highest 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 increase or decrease the number of directors or by stockholders at any meeting. 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 stockholder.

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."

AMENDED AND RESTATED EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EMPLOYMENT AGREEMENT (the " Agreement") is made and entered into as of November 15, 2019 (the "Effective Date"), by and between ZIVO Bioscience Inc., a Nevada corporation (the 'Company"), and Andrew A. Dahl ("Employee").

Recitals:

A. The Company desires to employ Employee as its President and Chief Executive Officer and desires to enter into an agreement with Employee setting forth the terms of that relationship and Employee desires to accept such employment with the Company on the terms and conditions set forth below.

B. Employee is in possession of and may come into possession of, or have access to, Confidential Information (defined below) with respect to the Business (defined below).

C. The Company and Employee are parties to an Amended and Restated Employment Agreement dated as of August 11, 2016 (the "Prior Agreement").

Agreements:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree that the Prior Agreement is hereby amended and restated to read in its entirety as follows:

1. Term. Subject to the termination provisions set forth inSection 10 below, Employee shall be employed by the Company under this Agreement beginning on the Effective Date and continuing thereafter for a period of three years (3) years (the "Initial Term"); provided, however, that following the Initial Term, the term of this Agreement shall be automatically extended for successive terms of one (1) year each (each a "Renewal Term"), unless either party notifies the other party in writing of its desire to terminate this Agreement at least sixty (60) days before the end of the Initial Term or a Renewal Term then in effect. Collectively, the Initial Term and any subsequent Renewal Term(s) (or any portion thereof) shall be referred to herein as the "Employment Term."

2. Employment. Throughout the Employment Term, Employee shall serve as President & Chief Executive Officer of the Company and shall diligently perform all such services, acts and things as are customarily done and performed by individuals holding such offices of companies in similar businesses and in similar size to the Company, together with such other duties as may reasonably be requested from time to time by the Board of Directors of the Company or its designee (the "Board"). Employee shall periodically and regularly report to the Board. As of the date hereof, Employee is employed through Sequoia Trusted Advisors, Inc., a professional employer organization ("Sequoia"). The Company acknowledges and agrees that it is responsible for making the payments due the Employee pursuant to the terms of this Agreement whether through Sequoia (or a successor professional employer organization) or directly by the Company if it no longer employs the Employee through Sequoia (or a successor professional employer organization). For the avoidance of doubt, all references to employment by the Company shall apply to any employment through Sequoia (or a successor professional employer organization).

3. Base Salary. Effective as of June 1, 2019, the Company shall pay to Employee an annual base salaryof four hundred forty thousand dollars ($440,000.00) per year, less required withholdings (such amount, as amended from time to time, the "Base Salary"). The Base Salary shall be subject to annual review and increase (but not decrease) by the Board during the Employment Term. Three hundred and fifty thousand dollars ($350,000.00) of the Base Salary per year shall be payable during the Employment Term in accordance with Company's usual pay practices (and in any event no less frequently than monthly). The remaining ninety thousand dollars ($90,000.00) of the Base Salary per year (the "Deferred Salary") shall accrue during the Employment Term but not become due and payable unless and until one of the conditions in this paragraph are satisfied. The Deferred Salary shall become due and payable upon the earlier to occur of the following: (i) within five (5) years after the Effective Date the Company enters into a term sheet to receive at least twenty five million dollars ($25,000,000.00) in equity or other form of investment or debt on terms satisfactory to the Board including funding at closing on such terms of at least $10 million; or (ii) within 12 months after the Effective Date the Company receives revenue of at least $10 million. If neither metric is met, Employee shall not be entitled to the Deferred Salary. The Deferred Salary, if earned, shall be paid to Employee within 14 business days after the date the applicable metric is satisfied. Following any condition that triggers payment of the Deferred Salary, the Company shall pay to Employee an annual base salary of four hundred forty thousand dollars ($440,000.00) per year, less required withholdings. 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.

4. Revenue Bonus. Employee shall receive a cash bonus representing two percent (2%) of revenue contribution collected by the Company resulting from contracts or arrangements (collectively, the "Revenue Contracts") initiated, developed and closed (the "Revenue Bonus").

(a) The formula determining the Revenue Bonus is as follows:

(i) For revenue generated from licenses, the product of (A) Gross Sales – External Selling Expense (if any), multiplied by (B) 2.00%; and

(ii) For revenue generated from the sale of products, the product of (A) Gross Sales – COGS – External Selling Expense (if any), multiplied by (B) 2.00%.

(b) As used herein, the following terms have the indicated meanings:

(i) "Gross Sales" means the grand total of all sale transactions reported by the Company, without any deductions included within the figure.

(ii) "External Selling Expense" means the actual, out-of-pocket expenses incurred by the Company directly related to the Gross Sales in question from third parties for legal, valuation, IP protection, project level subcontracted costs, consulting and other fees. For the avoidance of doubt, External Selling Expense does not include research and development expenses or other enterprise operating expenses of the Company.

(iii) "COGS" means the accumulated total of all costs used to create a product or service with respect to the Gross Sales in question.

In no event shall Company expenses be imputed or assigned to this formula in any cost accounting manner whatsoever.

(c) No Revenue Bonus is payable in any year where there is an Operating Net Loss. An "Operating Net Loss" is defined as a loss of income shown on the Company's income statement for that fiscal year prior to any extraordinary adjustments, write downs, accelerated losses or non-cash adjustments other than standard depreciation and amortization.

(d) The Revenue Bonus, if earned, shall be paid on an annual basis, in arrears,no later than March 15 following the end of the Company's fiscal year to which the Revenue Bonus relates. Should the Company experience a loss as defined above, any Revenue Bonus for that fiscal year is forfeited. The Revenue Bonus for each Revenue Contract shall he payable to Employee for the Employment Term plus five years after Employee is no longer employed by the Company, regardless of the reason for the termination of the Employee's employment. Revenue Bonus is only payable on Revenue Contracts initiated during the term of Employee's employment. Employee and Company shall maintain a record of Revenue Contracts initiated during the Employee's employment. Employee shall have the right to inspect the Company's books and records for any period covered under this agreement with reasonable notice. Should any discrepancy be discovered resulting in Employee having been underpaid, Employee is entitled to recovery of the underpaid amount plus reasonable costs of collections including any audit costs and damages equaling the amount that was underpaid, including any Code Section 409A penalties incurred by Employee due to late payment.

(e) The Revenue Bonus shall be payable regardless of (i) any Change of Control (as defined underSection 10(h) below) or any acquisitions by the Company, or (ii) whether the Employee is employed by the Company and, if not employed, regardless of the reason for the termination of Employee's employment; provided that Employee complies with the provisions of Section 11(f).

(f) The Company shall disclose this Agreement to any proposed purchasers.

(g) For the 2020 fiscal year (January 1, 2020 to December 31, 2020) ("Year One"), the Company shall pay the Employee a bonus equal to 50% of the 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 the Employee 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. Any bonus related to Year One or Year Two shall be payable no later 45 days following the end of Year One and Year Two, as the case may be, with the Revenue Bonus to be reduced by the payment of any such bonus contemplated by this subparagraph (g).

5. Stock Options. The options described in this Section 5 and in Section 11(b)(iii) shall be granted pursuant to and treated subject to the terms of that certain ZIVO Bioscience 2019 Omnibus Long-Term Incentive Plan (the "Plan"). For the avoidance of doubt, once any of the options described herein vest, Employee will not be required to exercise such options before the natural expiration of such option regardless of whether Employee is still employed by the Company and, if Employee is no longer employed by the Company, regardless of the reason for the termination of his employment.

(a) Stock Option Grant. Employee is hereby 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 Plan) of a share on the date of grant. The date of grant shall be the Effective Date, the entirety of the 28 million shares subject to such grant shall be fully vested as of the Effective Date and shall expire on the tenth (10^{th}) anniversary of the Effective Date.

(b) Performance-Based Options. Employee is also eligible to earn the following stock options (collectively, "Performance-Based Options") in each case subject to and consistent with the terms of the Plan:

(i) Employee is hereby awarded a non-qualified option to purchase 1,000,000 common shares, exercisable at the greater of $0.10 per share and the Fair Market Value of a share on the date of grant. The date of grant shall be the Effective Date and the entirety of the 1,000,000 million shares subject to such grant shall be fully vested upon identification of any bioactive agents and submission of a patent application by the Company with respect thereto, with which Employee shall assist the Company.

(ii) Employee is hereby awarded a non-qualified option to purchase 1,500,000 common shares, exercisable at the greater of $0.10 per share and the Fair Market Value of a share on the date of grant. The date of grant shall be the Effective Date and the entirety of the 1,500,000 million shares subject to such grant shall be fully vested upon the Company entering into an agreement and receiving at least $500,000 in payments from the contracting party pursuant to and during the term of such agreement.

(iii) Employee is hereby awarded a non-qualified option to purchase 1,500,000 common shares, exercisable at the greater of $0.10 per share and the Fair Market Value of a share on the date of grant. The date of grant shall be the Effective Date and the entirety of the 1,500,000 million shares subject to such grant shall be fully vested if the Company enters into a co-development partnership with a contract research organization to develop medicinal or pharmaceutical applications of any type during the Employment Term and such co-development partnership exceeds $2 million in actual cash or payment-in-kind outlay on the part of the co-development partner. The stock options would vest and remain eligible for exercise if the contract research firm, an intermediary, its venture fund or other investment firm instead acquired the Company.

(iv) Employee is hereby awarded a non-qualified option to purchase 1,500,000 common shares, exercisable at the greater of $0.10 per share and the Fair Market Value of a share on the date of grant. The date of grant shall be the Effective Date and the entirety of the 1,500,000 million shares subject to such grant shall be fully vested if the Company enters into a nutraceutical or dietary supplement co-development partnership, remarketing or production arrangement during the Employment Term and such co-development, production or remarketing arrangement exceeds $2 million in actual cash or payment-in-kind outlay by the partner or client. The stock options would vest and remain eligible for exercise if the partner company, intermediary or an investment firm instead acquired the Company.

(v) Employee is hereby awarded a non-qualified option to purchase 1,500,000 common shares, exercisable at the greater of $0.10 per share and the Fair Market Value of a share on the date of grant. The date of grant shall be the Effective Date and the entirety of the 1,500,000 million shares subject to such grant shall be fully vested if the Company enters into a pharmaceutical development arrangement with a pharmaceutical company or a recognized pharmaceutical intermediary company such as a pharma venture fund or lead compound licensing entity owned or controlled by a pharma, foundation, contract research organization or investment consortium. The stock options would vest and remain eligible if the pharmaceutical company, an intermediary or investment firm instead acquired the Company.

The options described in this Section 5(b), shall expire on the tenth (10^{th}) anniversary of the grant date. If Employee's employment is terminated by Employee for Good Reason (as defined below) or by the Company without Cause (as defined below) before any of the options described above in Section 5(b) have vested, then each such option shall nevertheless vest as of the satisfaction of such vesting requirement.

6. Equity Warrant in 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, Employee 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 (10^{th}) anniversary of the grant date. Once granted, the WellMetrix Warrant may be exercised from time to time in whole or in part, with the Employee 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; for example, if $10 million is invested in WellMetrix by a third party investor for 50% of WellMetrix (calculated as if the WellMetrix Warrant has been exercised), and if the outstanding interests in WellMetrix at such time are owned 50% by the third party investor, 25% by the Company and 25% by the Employee (calculated as if the WellMetrix Warrant has then been exercised), then the exercise price for the WellMetrix warrant shall be $5 million.

7. Expenses. The Company shall reimburse Employee for all necessary and reasonable business expenses incurred by him in the performance of his duties under this Agreement, upon presentation of expense accounts and appropriate documentation in accordance with the Company's standard policies, as they may be amended from time to time.

8. Benefits. Employee, at his election, may participate, during the Employment Term, in all retirement plans, savings plans, health or medical plans and any other benefit plans of the Company generally available from time to time to other management employees of the Company and for which Employee qualifies under the terms of the plans.

9. Services. Employee shall perform his duties under this Agreement faithfully, diligently and to the best of his ability. He shall serve subject to the policies and instruction of the Board to the extent consistent with the terms of this Agreement, and shall devote all of his business time, attention, energies and loyalty to the Company, provided, however, that the expenditure of reasonable amounts of time by Employee for personal, charitable, professional or other business activities, such as an outside director position, shall not be deemed a breach of this Agreement, so long as such activities do not materially interfere with the services required to be rendered by Employee under this Agreement and are not contrary to the interests of the Company. On reasonable notice, Employee shall make himself available to perform his duties under this Agreement at such times and at such places as the Company reasonably deems necessary, proper, convenient or desirable.

10. Termination. Employee or the Company may terminate Employee's employment as follows:

    (a) Death or Disability. Employee's employment under this Agreement shall terminate automatically upon Employee's death or Disability. For purposes of this Agreement, "Disability" means that (i) Employee has been unable, for 180 days or more in any 360-day period, to perform Employee's duties and responsibilities under this Agreement even with reasonable accommodation, as a result of physical or mental illness or injury, and (ii) a physician selected by the Company or its insurers, and acceptable to Employee or Employee's legal representative, has determined that Employee is so disabled. As part of this decision-making on disability, Employee and the Company agree to engage in discussion about possible reasonable accommodations, as such concept is contemplated by the Americans with Disabilities Act, as amended (the "ADA"). A termination of Employee's employment by the Company for "disability" shall be communicated to Employee by written notice, and shall be effective on the thirtieth (30^{th}) day after receipt of such notice by Employee (such day, the "Disability Confirmation Date"), unless Employee returns to full-time performance of Employee's duties before the Disability Confirmation Date.

    (b) By the Company "for Cause." During the Employment Term, the Company may immediately terminate Employee's employment for "Cause". For purposes of this Agreement, "Cause" shall mean, in each case as determined by the Board:

        (i) Employee's conviction of a felony or other crime involving moral turpitude (but not automobile related matters);

        (ii) Employee's commission of and conviction for any act or omission involving dishonesty, fraud, embezzlement, theft, substance abuse or sexual misconduct with respect to the Company, any subsidiary of the Company or any of their respective employees, vendors, suppliers or customers, the specific nature of which shall be set forth in a written notice by the Company to Employee;

(iii) Employee's substantial and continued neglect of or failure to perform his duties, or failure to follow a "reasonable directive of the Board" which, after written notice from the Board of such neglect or failure, has not been cured within thirty (30) days after he receives such notice. For purposes of this Agreement, "reasonable directive of the Board," shall mean a directive that is applied equitably among the management employees of the Company and that is not inconsistent with the terms of this Agreement; provided, however, that the foregoing shall not include any directive of the Board which (x) upon advice of counsel, could reasonably be a violation of applicable law, the rules and regulations governing the listing and/or trading of the Company's securities, or any material agreement to which the Company is a party or its assets are subject, or (y) is contrary to the customary operations of similarly situated businesses in the industries and markets in which the Company is engaged or expected to be engaged within one (1) year and;

(iv) Employee's gross negligence or willful misconduct in the performance of his duties which results in material harm to the Company; or

(v) Employee's conviction of a misappropriation of funds or assets of the Company or any subsidiary of the Company.

An act or failure to act will be considered "gross or willful" for this purpose only if done, or omitted to be done, by Employee in bad faith and without reasonable belief that it was in, or not opposed to, the best interests of the Company. Any act, or failure to act, based upon authority given pursuant to a resolution duly adopted by the Board (or a committee thereof) or based upon the advice of counsel for the Company will be conclusively presumed to be done, or omitted to be done, by Employee in good faith and in the best interests of the Company. Notwithstanding the foregoing, Employee may not be terminated for Cause pursuant to clauses (iii) or (iv) above unless and until there has been delivered to Employee a copy of a resolution duly adopted by the affirmative vote of not less than a majority of the entire membership of the Board (and not a committee thereof) at a meeting of the Board called and held for the purpose (after reasonable notice to Employee and an opportunity for Employee to be heard before the Board), finding that in the good faith opinion of the Board Employee were guilty of the conduct set forth above in clauses (iii) or (iv) of this definition and specifying the particulars thereof in detail.

(c) By the Company without Cause. During the Employment Term, the Company may terminate Employee's employment upon thirty (30) days' advance written notice to Employee.

(d) By Employee. During the Employment Term, Employee may voluntarily terminate Employee's employment for any reason or no reason whatsoever upon thirty (30) days' advance written notice to the Company.

(e) By Employee with "Good Reason." During the Employment Term, Employee may terminate his employment for "Good Reason." For purposes of this Agreement, "Good Reason" shall mean, without Employee's prior written consent, any of the following:

(i) a material diminution in Employee's authorities, duties, titles or responsibilities;

(ii) the location of the facility at which Employee is required to perform his duties is more than fifty (50) miles from the then current Company headquarters;

(iii) a material reduction of Employee's then Base Salary; or

(iv) the Company's failure to pay or make available any material payment or benefit due Employee under this Agreement or any other material breach by the Company of this Agreement.

However, the foregoing events or conditions will constitute Good Reason only if Employee provides the Company with written objection to the event or condition within ninety (90) days following the occurrence thereof, the Company does not reverse or otherwise cure the event or condition within thirty (30) days of receiving that written objection and Employee resigns his employment within thirty (30) days following the expiration of that cure period.

(f) Based on Non-Renewal. Employee's employment will automatically terminate as of the end of the Initial Term or Renewal Term then in effect, as applicable, if either party notifies the other party in writing of its desire not to renew this Agreement at the end of such Initial Term or then-current Renewal Term at least sixty (60) days before the end of such Initial Term or Renewal Term.

11. Payments Following Termination.

(a) Accrued Obligations. Upon the termination of Employee's employment for any reason outlined in Section 10, above, Employee shall be entitled to and the Company shall provide the following payments and benefits (collectively, the "Accrued Obligations"):

(i) Any accrued and unpaid Base Salary covering the period of employment prior to the effective date of termination, payable on the next regularly scheduled payroll date after the effective date of Employee's termination;

(ii) Reimbursement for any expenses properly incurred by Employee in accordance with Section 7 through the effective date of Employee's termination, payable within thirty (30) days after the effective date of Employee's termination, provided Employee has submitted all requisite expense reimbursement documentation; and

(iii) Employee benefits, if any, to which Employee may be entitled under the Company's employee benefit plans as of the effective date of Employee's termination; provided, that, in no event shall Employee be entitled to any payments in the nature of severance or termination payments except as expressly provided in this Section 11.

Notwithstanding anything to the contrary in this Agreement, the Company shall remain obligated to continue paying all Revenue Bonuses in accordance with Section 4, regardless of the reason for the termination of Employee's employment; provided that, in all cases of termination to continue to receive the Revenue Bonus after the end of the Employment Period, Employee must comply with Section 11(f).

(b) Severance Benefits Following a Termination by the Company without Cause or by Employee for Good Reason. Upon the termination Employee's employment by the Company without Cause or by Employee for Good Reason only, and subject to Section 11(f), in addition to the Accrued Obligations, Employee shall be entitled to:

(i) Employee shall be entitled to severance pay equal to twenty-four (24) months' of his Base Salary. For purposes of this subparagraph, Base Salary shall be determined based on Employee's current Base Salary as of the date of termination. Provided that Employee has complied with Section 11(f) by such date, the first installment of this salary continuation shall be payable to Employee on the sixtieth (60th) day after the effective date of the termination and shall include a catch-up payment covering amounts that would otherwise have been paid during such sixty (60) day period. Thereafter, the salary continuation payments shall be payable in regular installments in accordance with the Company's general payroll practices.

(ii) Employee shall be entitled to a lump sum cash payment equal to three (3) times the total amount of Revenue Bonus paid to Employee during the trailing twelve month period immediately preceding the date of termination, with this amount to be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date, plus the continuation of any Revenue Bonus in accordance with the terms of Section 4; provided that Employee has complied with Section 11(f) as of each such payment date.

(iii) If Employee's employment is terminated within the Initial Term, the Company shall grant Employee a non-qualified option to purchase 1,000,000 common shares, exercisable at the greater of $0.10 per share and the Fair Market Value of a share on the date of grant. This grant shall be made on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date. Upon the date of grant, the entirety of the 1,000,000 shares subject to such grant shall be fully vested as of such date and shall expire on the tenth (10^{th}) anniversary thereof. These options shall be granted under and treated subject to and consistent with the terms of the Plan.

(iv) A lump sum cash payment in the amount of $20,000, to be used for the purchase of medical coverage or for any other purpose, to be paid on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date.

(c) Severance Benefits Following a Change of Control. If Employee's employment with the Company ceases within the twenty-four (24) month period following the date of a Change of Control (defined below) due to Employee's death or Disability under Section 10(a), as a result of a termination by the Company without Cause under Section 10(c), or as a result of a resignation by Employee for Good Reason under Section 10(e), then, subject to Section 11(f), Employee will be entitled to:

(i) The Accrued Obligations;

(ii) A lump sum cash payment equal to 300% of the Base Salary as in effect on such date;provided, however, that in the case of a resignation by Employee for Good Reason, the Base Salary used to calculate this amount shall mean the Base Salary payable to Employee by the Company, as in effect immediately prior to the reduction giving rise to the Good Reason. This amount will be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date.

(iii) A lump sum cash payment equal to two (2) times the total amount of Revenue Bonus paid to Employee during the trailing twelve month period immediately preceding a Change in Control, with this amount to be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date, plus the continuation of any Revenue Bonus in accordance with the terms of Section 4, provided that Employee has complied with Section 11(f) as of each such payment date.

(iv) A lump sum cash payment in the amount of $20,000, to be used for the purchase of medical coverage or for any other purpose, to be paid on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date.

(v) Severance pay equal to twenty-four (24) months of Employee's Base Salary. For purposes of this subparagraph, Base Salary shall be determined based on Employee's current Base Salary as of the date of termination. Provided that Employee has complied with Section 11(f) by such date, the first installment of this salary continuation shall be payable to Employee on the sixtieth (60th) day after the effective date of the termination and shall include a catch-up payment covering amounts that would otherwise have been paid during such sixty (60) day period. Thereafter, the salary continuation payments shall be payable in regular installments in accordance with the Company's general payroll practices.

(vi) All outstanding and contingent non-qualified options owned directly or beneficially by Employee shall be converted immediately into vested options, with terms as specified in the Award Agreement, but in no case with an expiration date longer than the original option expiration date. This conversion shall take place on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date.

(d) Severance Events Preceding a Change of Control. If Employee's employment with the Company ceases during the sixty (60) days immediately preceding the date of a Change of Control (defined below) due to Employee's death or termination due to Disability under Section 10(a), as a result of a termination by the Company without Cause under Section 10(c), or as a result of a resignation by Employee for Good Reason under Section 10(e), then, subject to Section 11(f), Employee will be entitled to:

(i) The Accrued Obligations;

(ii) The Company will make a lump sum cash payment to Employee equal to 300% of the Base Salary as in effect on such date; provided, however, that in the case of a resignation by Employee for Good Reason, the Base Salary used to calculate this amount shall mean the Base Salary payable to Employee by the Company, as in effect immediately prior to the reduction giving rise to the Good Reason. This amount will be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date;

(iii) A lump sum cash payment equal to two (2) times the total amount of Revenue Bonus paid to Employee during the trailing twelve month period immediately preceding a Change in Control, with this amount to be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date, plus the continuation of any Revenue Bonus in accordance with the terms of Section 4; provided that Employee has complied with Section 11(f) as of each such payment date;

(iv) A lump sum cash payment in the amount of $20,000, to be used for the purchase of medical coverage or for any other purpose, to be paid on the sixtieth (60th) day after the effective date of Employee's employment termination, provided that Employee has complied with Section 11(f) by such date;

(v) Severance pay equal to twenty-four (24) months of Employee's Base Salary. For purposes of this subparagraph, Base Salary shall be determined based on Employee's current Base Salary as of the date of termination. Provided that Employee has complied with Section 11(f) by such date, the first installment of this salary continuation shall be payable to Employee on the sixtieth (60th) day after the effective date of the termination and shall include a catch-up payment covering amounts that would otherwise have been paid during such sixty (60) day period. Thereafter, the salary continuation payments shall be payable in regular installments in accordance with the Company's general payroll practices.

(vi) All outstanding and contingent non-qualified options owned directly or beneficially by Employee shall be converted immediately into vested options, with terms as specified in the Award Agreement, but in no case with an expiration date longer than the original option expiration date. This conversion shall take place on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 11(f) by such date.

In an effort to be prepared for a potential Change of Control occurring within such sixty (60)-day period, the Company shall deliver to the Employee the form of Release required hereunder promptly after Employee's employment with the Company ceases so that the Employee can execute and deliver to the Company such Release and allow for the revocation and other time periods to lapse, provided, however, that, in the event a Change of Control does not occur within sixty (60) days after Employee's employment with the Company ceases, any such Release delivered to the Company (x) shall be void and without force or effect as it relates to this Section 11(d), but (y) if applicable, shall be effective as it relates to Section 11(b).

(e) Reduction of Severance Benefits. Notwithstanding the foregoing, if the Company's obligation to make the payments provided for in Sections 11(c)(ii) and 11(c)(iii) or Sections 11(d)(ii) and 11(d)(iii) arises due to Employee's death or termination due to Disability, the cash payments described in such sections, as applicable, will be reduced by the amount of benefits paid or payable to Employee (or Employee's representative(s), heirs, estate or beneficiaries) pursuant to the life insurance or disability plans, policies or arrangements of the Company by virtue of Employee's death or termination due to Disability (including, for this purpose, only that portion of such life insurance or disability benefits funded solely by the Company or by premium payments made by the Company and not including the portion of such benefits paid for by Employee); provided that such offset does not violate Code Section 409A.

(f) Conditions to Severance Benefits; Payment Timing Notwithstanding any provision of this Agreement, the payments and benefits described in this Section 11 (other than any Accrued Obligations) shall be provided if and only if: (i) Employee has been and remains in strict compliance with his post-employment obligations to the Company, including, without limitation, those outlined in Section 12 through Section 15 of this Agreement, provided that noncompliance shall be determined only pursuant to a final, non-appealable decision by a court of competent jurisdiction; and (ii) Employee has executed and delivered to the Company a general release of claims satisfactory to the Company in the form attached hereto as Exhibit A (the "Release") and such Release becomes effective and irrevocable in a manner consistent with applicable law within sixty (60) days after the date Employee's employment is terminated. Notwithstanding any provision of this Agreement to the contrary, in no event shall the timing of Employee's execution of the Release, directly or indirectly, result in Employee designating the calendar year of payment, and if a payment that is subject to execution of the Release could be made in more than one taxable year, payment shall be made in the later taxable year.

(g) No Other/Duplication of Benefits. Except as specifically provided herein and subject to Code Section 409A, Employee shall not accrue or be entitled to any salary, compensation (Including under any severance plan, fund, agreement, or other arrangement maintained by the Company), or benefits after the date Employee's employment is terminated, except as provided in this Section 11 or expressly required by applicable law. Further, and for the avoidance of doubt, the payments and benefits described in Section 11(c) and Section 11(d) are in lieu of (and not in addition to) each other and of the benefits set forth in Section 11(b).

(h) Change in Control Definition. As used in this Agreement, "Change of Control" means the happening of an event, which shall be deemed to have occurred upon the earliest to occur of the following events:

(i) The dissolution or liquidation of the Company;

(ii) The sale or other disposition of all or substantially all of the assets of the Company;

(iii) The merger or consolidation of the Company with or into another corporation or other entity, other than, in either case, a merger or consolidation of the Company in which holders of shares of the Company's voting securities immediately prior to the merger or consolidation will have more than 50% of the ownership of voting capital stock of the surviving corporation immediately after the merger or consolidation (on a fully diluted basis), which voting securities are to be held in the same proportion (on a fully diluted basis) as such holders ownership of voting capital stock of the Company immediately before the merger or consolidation;

(iv) The date any entity, Person or group (within the meaning of Section 13(d)(3) or Section 14(d)(2) of the Exchange Act), other than (i) the Company, or (ii) any of its Subsidiaries, or (iii) any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries, or (iv) any Affiliate (as such term is defined in Rule 405 promulgated under the Securities Act) of any of the foregoing, shall have acquired beneficial ownership of, or shall have acquired voting control over, 50% or more of the outstanding shares of the Company's voting capital stock (on a fully diluted basis), unless the transaction pursuant to which such Person, entity or group acquired such beneficial ownership or control resulted from the original issuance by the Company of shares of its voting capital stock and was approved by at least a majority of Directors who were either members of the Board on the date that this Agreement was originally adopted by the Board or members of the Board for at least twelve (12) months before the date of such approval; or

(v) The first day after the date of this Agreement when Directors are elected such that there is a change in the composition of the Board such that a majority of Directors have been members of the Board for less than twelve (12) months, unless the nomination for election of each new Director who was not a Director at the beginning of such twelve (12) month period was approved by a vote of at least sixty percent (60%) of the Directors then still in office who were Directors at the beginning of such period.

Notwithstanding the foregoing, the Board may provide for a different definition of a Change of Control in an Award Agreement if such Award is subject to the requirements of Code Section 409A and the Award will become payable on a Change of Control. Notwithstanding the foregoing, to the extent "Change of Control" is a payment trigger and not merely a vesting trigger for any payment provided hereunder that is not exempt from Code Section 409A, "Change of Control" means a change in the ownership or effective control of the Company, or a change in the ownership of a substantial portion of the assets of the Company, as described in Treas, Reg. Section 1.409A-3(i)(5), but replacing the term "Company" for the term "corporation" in such regulation.

12. Cooperation**.** During the Employment Term and for the one (1) year period after Employee's employment with the Company ends for any reason other than death, Employee agrees to give his assistance and cooperation, upon reasonable advance notice, in any matter relating to his position with the Company, or his knowledge as a result thereof as the Company may reasonably request, including his attendance and truthful testimony where reasonably deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigation or other proceeding relating to matters in which Employee was involved or has knowledge by virtue of his employment with the Company. The Company shall reasonably endeavor to schedule such cooperation at times not conflicting with the reasonable requirements of any employer or third party with whom Employee has a business relationship permitted hereunder that provides remuneration to Employee and shall promptly reimburse Employee for all reasonable costs and expenses incurred in connection therewith and shall promptly pay Employee $220 per hour for his time expended in connection therewith, in accordance with Company policy and upon the submission of the appropriate documentation to the Company.

13. Fair Competition. The Company and Employee acknowledge and agree that for Employee to compete with the Company during the Employment Term and for a limited time after the end of the Employment Term would be contrary to the purposes for which the parties entered into this Agreement. In order to induce the Company to enter into this Agreement, Employee covenants, warrants and agrees, for the benefit of the Company, and its respective current and future Subsidiaries, successors and assigns (collectively, the "Protected Parties" and each a "Protected Party"), that, during the Covenant Period (as defined below), Employee, for himself or for any other Person, either as a principal, agent, employee, contractor, director, officer or in any other capacity, shall not, without first obtaining the express written consent of the Company (except in his capacity as an employee of the Company), either directly or indirectly:

(a) Own, manage, operate, join, control, finance or participate in the ownership, management, operation, control or financing of, or be connected as an officer, director, employee, partner, principal, agent, representative, stockholder, consultant, investor or otherwise with, or use or permit his name to be used in connection with, any Person which directly or indirectly engages in the development, marketing or sale of products or compounds that are competitive with: (i) those products being marketed by the Protected Parties with respect to the Business at the time of Employee's termination; (ii) those products, product candidates or compounds in clinical development or a clinical research program by the Company at the time of Employee's termination; or (iii) those products, product candidates or compounds that Employee was aware were under pre-clinical development with respect to the Business by Protected Parties and expected to be in clinical development or in a clinical research program within six (6) months of Employee's termination (collectively, the "Company's Business");

(b) (x) Solicit, entice or induce any customer to (i) become a customer of any other Person with respect to the Company's Business; (ii) refrain from or cease doing business with the Protected Parties with respect to the Company's Business; or (iii) reduce its business with the Protected Parties with respect to the Company's Business, and (y) Employee will not approach any such Person for such purpose described in clauses (i), (ii) or (iii) or authorize or knowingly approve, encourage or assist the taking of such actions by any other Person;

(c) Solicit, recruit or hire any part-time or full-time employee, representative or consultant of any Protected Party to (1) leave the employment of or terminate his, her or its contractual relationship with such Protected Party; or (2) enter into an employment or a contractual relationship with any third party, including Employee or any Person in which Employee has any interest whatsoever, and Employee shall not engage in any activity that would cause any employee, representative or consultant to violate any agreement with any Protected Party, provided that the foregoing covenant shall not apply to any Person after twelve (12) months have elapsed after the date on which such person's employment by a Protected Party has terminated, and provided further that nothing contained herein shall prevent Employee from employing or engaging any Person who, without any encouragement by Employee or his representatives, (x) responds to a general media advertisement or non-directed search inquiry (including the use of employment agencies provided no direction was given to target a Protected Party's employees or third party contractors), or (x) makes an unsolicited contact for employment or engagement as a third party contractor.

(d) Notwithstanding the foregoing, during the Covenant Period, Employee is free to conduct the affairs of Great Northern & Reserve Partners, LLC, a privately held consulting and investment firm wholly owned and controlled by Employee, and to serve on boards of other companies when such opportunities are offered; provided that, in each case, such activities do not otherwise breach or materially interfere with Employee's obligations under this Agreement. The foregoing restrictions in this Section 13 shall also not be construed to prohibit Employee's ownership of less than five percent of any class of securities of any corporation or other entity which is engaged in any of the foregoing businesses with which Employee is restricted hereunder from being affiliated with and has a class of securities registered pursuant to the Securities Exchange Act of 1934, as amended, provided that such ownership represents a passive investment and that neither Employee nor any group of persons including Employee in any way, either directly or indirectly, manages or exercises control of any such corporation, guarantees any of its financial obligations, otherwise takes any part in its business, other than exercising Employee's rights as a stockholder, or seeks to do any of the foregoing.

(e) For purposes of this Agreement, the following terms shall have mean:

(i) "Affiliate" means, as to any specified Person, any other Person controlling or controlled by or under common control with such specified Person;

(ii) "Business" means the business of selling or licensing the specific intellectual property, products and processes developed and owned by the Company during the Employment Term in any market or application specifically as they relate to cholesterol regulation and non-steroidal anti-inflammatory agents unique to the Company and protected by patents or patents in application held by the Company.

(iii) "Covenant Period" means during the Employment Term and continuing for a period of one (1) year after the date that Employee's employment with the Company ends for any reason, including, but not limited to, as the result of any of the reasons set forth in Section 10, above; provided, however, that in the event there is a Change of Control and related termination that triggers Employee's eligibility for the benefits outlined in Section 11(c) or 11(d), above, "Covenant Period" shall mean during the Employment Term and continuing for a period of three (3) years after the date that Employee's employment with the Company ends. The Parties acknowledge and agree that this extended period is reasonable and is a specifically negotiated for term being provided in exchange for the significant consideration to be provided to Employee following a Change in Control as provided in Section 11(c) or 11(d).

The parties further agree that should Employee be asked to provide continuing consulting services to the Company following a Change of Control and related termination, such provision of services to the Company (or its successor) shall not violate the provisions of this Section 13.

(iv) "Person" means an individual, corporation, partnership, limited liability company, association, trust, joint venture, unincorporated organization, other entity or group, or a governmental authority.

(v) "Subsidiary" means any entity in which the Company owns more than fifty percent (50%) of the voting securities.

14. Intellectual Property Rights. Employee recognizes that he may, individually or jointly with others, discover, conceive, make, perfect or develop inventions, discoveries, new contributions, concepts, ideas, developments, processes, formulas, methods, compositions, techniques, articles, machines and improvements, and all original works of authorship and all related know-how, whether or not patentable, copyrightable or protectable as trade secrets for and on behalf of the Company pursuant to this Agreement ("Inventions"). Employee agrees that all such Inventions are the sole and exclusive property of the Company. **EMPLOYEE AGREES THAT ANY PARTICIPATION BY HIM IN THE DESIGN, DISCOVERY, CONCEPTION, PRODUCTION, PERFECTION, DEVELOPMENT OR IMPROVEMENT OF AN INVENTION IS WORK MADE FOR HIRE, AS DEFINED IN TITLE 17, UNITED STATES CODE, FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE COMPANY AND EMPLOYEE HEREBY ASSIGNS TO THE COMPANY ALL OF HIS RIGHTS IN AND TO SUCH INVENTIONS.** Employee shall maintain adequate and current written records of all Inventions, which shall remain the property of the Company and be available to the Company at all times. At the Company's request, Employee shall promptly sign and deliver all documents necessary to vest in the Company all right, title and interest in and to any Inventions. If the Company is unable, after reasonable effort, to secure Employee's signature on any document needed to vest in the Company all right, title and interest in and to any Inventions, whether because of Employee's physical or mental incapacity or for any other reason whatsoever, Employee hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Employee's agent and attorney-in-fact, to act for and in Employee's behalf and stead to execute and file any such document and to do all other lawfully permitted acts to further the prosecution and enforcement of patents, copyrights or similar protections with the same legal force and effect as if executed by Employee.

15. Confidentiality.

(a) Employee acknowledges and agrees that he shall treat all Confidential Information (as defined below) in a confidential manner, not use any Confidential Information for his own or a third party's benefit and not communicate or disclose, orally or in writing, any Confidential Information to any person, either directly or indirectly, under any circumstances without the prior written consent of the Company. Employee further agrees that he shall not utilize or make available any Confidential Information, either directly or indirectly, in connection with his solicitation of employment or acceptance of employment with any third party. Employee further agrees that he will promptly return (or destroy if it cannot be returned) to Company all written or other tangible evidence of any Confidential Information and any memoranda with respect thereto which are in his possession or under his control upon Company's request for the return of such items.

(b) For the purposes of this Agreement, the term "Confidential Information" shall include all proprietary information related to the Business, including, but not limited to, processes, ideas, techniques, Inventions, methods, products, services, research, purchasing, marketing, selling, customers, suppliers or trade secrets. All information which Employee has a reasonable basis to believe to be Confidential Information, or which Employee has a reasonable basis to believe the Company or any of its Affiliates treat as Confidential Information, shall be deemed to be Confidential Information. Notwithstanding the foregoing, information shall not be deemed to be Confidential Information if it is generally known and publicly available, without the fault of Employee and without the violation by any person of a duty of confidentiality or any other duty owed to any Protected Party.

(c) Nothing in this Agreement shall be construed to prevent disclosure of Confidential Information or the making of statements, as may be required by applicable law or regulation, or pursuant to the valid order of a court of competent jurisdiction or an authorized government agency, provided that such disclosure or statements will be limited to the extent and only in the instances Employee is so compelled and, subject to the requirements of applicable law, Employee agrees to give the Company prior written notice of his intent to so disclose such Confidential Information or make any such statements and to cooperate with the Company (at the Company's sole cost and expense) in seeking confidentiality protections or resisting such compulsion as requested by the Company.

Employee further understands and agrees that this Agreement does not prohibit Employee from reporting possible violations of federal law or regulation to any governmental agency or entity or making other disclosures that are protected under the whistleblower provisions of federal law or regulation and that Employee does not need the Company's prior authorization to make any such reports or disclosures and is not required to notify the Company that he has made such reports or disclosures.

(d) Further, notwithstanding any other provision of this Agreement: (i) Employee is advised that an individual will not be held criminally or civilly liable under any federal or state trade secret law for any disclosure of a trade secret that is made: (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and solely for the purpose of reporting or investigating a suspected violation of law; or (2) in a complaint or other document that is filed under seal in a lawsuit or other proceeding; and (ii) if a person files a lawsuit for retaliation by the Company for reporting a suspected violation of law, that person may disclose the Company's trade secrets to his or her attorney and use the trade secret information in the court proceeding if that person (1) files any document containing the trade secret under seal; and (2) does not disclose the trade secret, except pursuant to court order.

16. Enforceability; Remedies.

(a) Employee acknowledges and agrees that the covenants set forth in Section 13 through Section 15 above (collectively, the "Restrictive Covenants" and each a "Restrictive Covenant") are reasonable and valid in geographical and temporal scope and in all other respects and are necessary to protect the legitimate interests of the Company and its Affiliates, that the Company would not have entered into this Agreement in the absence of such restrictions, and that any violation of Restrictive Covenant could result in irreparable injury to the Company. Employee further represents and acknowledges that (i) he has been advised by the Company to consult his own legal counsel in respect of this Agreement, and (ii) that he has had full opportunity, prior to execution of this Agreement, to review thoroughly this Agreement with his counsel.

(b) The parties intend that the Restrictive Covenants shall be deemed to be a series of separate covenants, one for each and every political subdivision of each country, state, province and county, as applicable in the world. If any court determines that any Restrictive Covenant, or any portion thereof, is invalid or unenforceable, the remainder of the Restrictive Covenants 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 Restrictive Covenant, 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 enforce such covenant or portion in such reduced form. The parties intend to and hereby confer jurisdiction to enforce the Restrictive Covenants upon the courts of any jurisdiction in which Employee is alleged to have committed an act in violation of any of the covenants contained here. If the courts of any one or more of such jurisdictions hold the Restrictive Covenants, or any portion thereof, unenforceable, it is the intention of the parties 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 Restrictive Covenants as to breaches of such Restrictive Covenants in such other respective jurisdictions.

(c) In the event of a breach or attempted breach of any of the Restrictive Covenants, in addition to any and all legal and equitable remedies immediately available, such Restrictive Covenants may be enforced by a temporary and/or permanent injunction to secure the specific performance of such Restrictive Covenants, and to prevent a breach or contemplated breach of such Restrictive Covenants, without the need to post any bond or other security of any kind. Employee acknowledges and agrees that the remedy at law for a breach or threatened breach of any of the Restrictive Covenants would be inadequate. Employee acknowledges and agrees that the remedies provided for in this Agreement are cumulative and are intended to be and are in addition to any other remedies available to the Company, either at law or in equity. In addition, Employee agrees that, in the event of a breach of the Restrictive Covenants by Employee as determined pursuant to a final, non-appealable decision by a court of competent jurisdiction, he shall be liable, and shall reimburse the Company, for all fees, costs and expenses (including reasonable attorneys' fees and other professional fees) arising out of or in any way related to the enforcement of such Restrictive Covenants. The Company agrees that in the event of a dispute or breach in which Employee prevails pursuant to a final, non-appealable decision by a court of competent jurisdiction, the Company shall be liable, and shall reimburse Employee, for all fees, costs and expenses (including reasonable attorneys' fees and other professional fees) arising out of or in any way related to the enforcement of the Restrictive Covenants.

17. Notices. All notices, requests, consents and other communications, required or permitted to be given under this Agreement shall be personally delivered in writing or shall have been deemed duly given when received after it is posted in the United States mail, postage prepaid, registered or certified, return receipt requested addressed as set forth below. In addition, a party may deliver a notice via another reasonable means that results in the recipient party receiving actual notice, as conclusively demonstrated by the party giving such notice.

If to the Company:

Phillip M. Rice II, Chief Financial Officer
ZIVO Bioscience, Inc.
2804 Orchard Lake Road, Suite 202
Keego Harbor, MI 48320
Cell: 586 665 9000
Fax: 248 869 6006
price@zivobioscience.com

With a required copy to:

Honigman LLP
2290 First National Building
660 Woodward Avenue
Detroit, MI 48226
Attn: Donald J. Kunz
dkunz@honigman.com

If to Employee:

Andrew A Dahl
7 West Square Lake Road
Bloomfield Hills, Michigan USA 48302
Cell: 248 978 3911 Fax: (248) 341-3411
adahl@greatnorthreserve.com

With a required copy to:

Dykema Gossett PLLC
400 Renaissance Center
Detroit, MI 48234
Attn: J. Michael Bernard
jbernard@dykema.com

18. Taxes.

(a) Any payments provided for in this Agreement shall be paid net of any applicable income tax withholding required under federal, state or local law.

(b) This Agreement shall be interpreted to avoid any penalty sanctions under Section 409A of the Code. If any payment or benefit cannot be provided or made at the time specified herein without incurring sanctions under Section 409A, then such benefit or payment shall be provided in full at the earliest time thereafter when such sanctions will not be imposed. All payments to be made upon a termination of employment under this Agreement will be made upon a "separation from service" under Section 409A of the Code. For purposes of Section 409A of the Code, each payment made under this Agreement shall be treated as a separate payment. In no event may Employee, directly or indirectly, designate the calendar year of payment. To the maximum extent permitted under Section 409A of the Code and its corresponding regulations, the cash severance benefits payable under this Agreement are intended to meet the requirements of the short-term deferral exemption under Section 409A of the Code and the "separation pay exception" under Treas. Reg. §1.409A-1(b)(9)(iii). However, if such severance benefits do not qualify for such exemptions at the time of Employee's termination of employment and therefore are deemed as deferred compensation subject to the requirements of Section 409A of the Code, then if Employee is a "specified employee" under Section 409A of the Code on the date of Employee's termination of employment, notwithstanding any other provision of this Agreement, payment of severance under this Agreement shall be delayed for a period of six (6) months from the date of Employee's termination of employment if required by Section 409A of the Code. The accumulated postponed amount shall be paid in a lump sum payment within ten (10) days after the end of the six (6) month period. If Employee dies during the postponement period prior to payment of the postponed amount, the amounts withheld on account of Section 409A of the Code shall be paid to Employee's estate within sixty (60) days after the date of Employee's death.

All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A of the Code, including, where applicable, the requirement that (i) any reimbursement shall be for expenses incurred during Employee's lifetime (or during a shorter period of time specified in this Agreement), (ii) the amount of expenses eligible for reimbursement, or in kind benefits provided, during a calendar year may not affect the expenses eligible for reimbursement, or in kind benefits to be provided, in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred and (iv) the right to reimbursement or in kind benefits is not subject to liquidation or exchange for another benefit.

(c) The payments and benefits provided under Section 10 shall be made without regard to whether such payments and benefits, either alone or in conjunction with any other payments or benefits made available to Employee by the Company and its affiliates, will result in Employee being subject to an excise tax under Section 4999 of the Code (the "Excise Tax") or whether the deductibility of such payments and benefits would be limited or precluded by Section 280G of the Code; *provided, however*, that if the Total After-Tax Payments (as defined below) would be increased by limitation or elimination of payments or benefits provided under Section 11, then the amounts and benefits payable under Section 11 will be reduced to the minimum extent necessary to maximize the Total After-Tax Payments. For purposes of this Section 17, "Total After-Tax Payments" means the total of all "parachute payments" (as that term is defined in Section 280G(b)(2) of the Code) made to or for the benefit of Employee (whether made under this Agreement or otherwise), after reduction for all applicable taxes (including, without limitation, the Excise Tax). If a reduction to the payments or benefits provided under Section 11 is required pursuant to this Section 18, such reduction shall be determined in the following order and priority: first, there shall be reduced or eliminated any such right, payment or benefit that is excluded from the coverage of Code Section 409A, and then there shall be reduced or eliminated any such right, payment or benefit that is subject to Code Section 409A (with the reduction in rights, payments or benefits subject to Code Section 409A occurring in the reverse chronological order in which such rights, payments or benefits would otherwise be or become vested, exercisable or settled). For the avoidance of doubt, the parties expressly agree that this Section 17(c) shall prevail over any inconsistent or conflicting terms in Section 14 of the Plan.

(d) All determinations to be made under this Section 18 shall be made by the Company's independent public accountant (the "Accounting Firm") immediately prior to the Change of Control. In the event that the Accounting Firm is serving as accountant or auditor for the individual, entity or group effecting the Change of Control, Employee may appoint another nationally recognized public accounting firm to make the determinations required hereunder (which accounting firm shall then be referred to as the Accounting Firm hereunder). All fees and expenses of the Accounting Firm shall be borne solely by the Company. Any determination by the Accounting Firm shall be binding upon the Company and Employee, except as described in the next paragraph.

(e) As a result of the uncertainty in the application of Section 280G and Section 4999 of the Code at the time of the Change of Control, it is possible that payments and benefits which will not have been made or provided by the Company should have been made ("Underpayment") or payments and benefits are made or provided by the Company which should not have been made ("Overpayment"), consistent with the calculations required to be made hereunder. In the event that there is a final determination by the Internal Revenue Service, or a final determination by a court of competent jurisdiction, that an Overpayment has been made, any such Overpayment shall repaid to the Company by Employee within thirty (30) days of such determination, with interest at the applicable Federal rate provided for in Section 7872(f)(2). In the event that there is a final determination by the Internal Revenue Service, or a final determination by a court of competent jurisdiction, any such Underpayment shall be promptly paid by the Company to or for the benefit of Employee together with interest at the applicable Federal rate provided for in Section 7872(f)(2) of the Code, within thirty (30) days of such determination.

(f) Employee shall take such action (other than waiving Employee's right to any payments or benefits) as the Company reasonably requests under the circumstances to mitigate or challenge any tax contemplated by this Section 18. If the Company reasonably requests that Employee take action to mitigate or challenge, or to mitigate and challenge, any such tax or assessment and Employee complies with such request, the Company shall provide Employee with such information and such expert advice and assistance from the Company's accountants, lawyers and other advisors as Employee may reasonably request and shall pay for all expenses incurred in effecting such compliance and any related fines, penalties, interest and other assessments.

19. Miscellaneous.

(a) The failure of any party to enforce any provision or protections of this Agreement shall not in any way be construed as a waiver of any such provision or provisions as to any future violations thereof, nor prevent that party thereafter from enforcing each and every other provision of this Agreement. The rights granted the parties herein are cumulative and the waiver of any single remedy shall not constitute a waiver of such party's right to assert all other legal remedies available to it under the circumstances.

(b) This Agreement has been executed in, and shall be construed and enforced in accordance with the laws of, the State of Michigan.

(c) Any legal proceeding arising out of or relating to this Agreement will be instituted in the United States District Court for the Eastern District of Michigan, or if that court does not have or will not accept jurisdiction, in any court of general jurisdiction in Oakland County, Michigan, and Employee and the Company hereby consent to the personal and exclusive jurisdiction of such court(s) and hereby waive any objection(s) that they may have to personal jurisdiction, the laying of venue of any such proceeding and any claim or defense of inconvenient forum.

(d) The provisions of this Agreement are severable and if any one or more provisions may be determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions and any partially unenforceable provision to the extent enforceable in any jurisdiction nevertheless shall be binding and enforceable.

(e) This Agreement, inclusive of the above recitals, sets forth the entire understanding and agreement of Employee and the Company with respect to its subject matter and supersedes all prior understandings and agreements, whether written or oral, in respect thereof. For the avoidance of doubt, the parties acknowledge and agree that this Agreement replaces and supersedes that certain Amended and Restated Employment Agreement between the Company and Employee and that certain Amended and Restated Change in Control Agreement. No modification, termination or attempted waiver of this Agreement shall be valid unless in writing and signed by the party against whom the same is sought to be enforced.

(f) The rights and obligations of Company under this Agreement shall inure to the benefit of, and shall be binding on, Company and its successors and assigns. This Agreement is personal to Employee and he may not assign his obligations under this Agreement in any manner whatsoever and any purported assignment shall be void. The Company, however, may assign this Agreement in connection with a sale of all or substantially all of its equity interests or assets.

(g) The parties acknowledge that each of them has equally participated in the final wording of this Agreement. Accordingly, the parties agree that this Agreement shall be construed equally against each party and shall not be more harshly construed against a party by reason of the fact that a particular party's counsel may have prepared this Agreement.

(h) The headings and captions used in this Agreement are for convenience of reference only and shall not be considered in interpreting this Agreement.

(i) This Agreement may be executed, including execution by electronic signature, in one or more counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same agreement.

(j) Employee shall not be required to mitigate damages or the amount of any payments provided for under this Agreement by seeking other employment or otherwise.

(k) Employee agrees that Employee will be subject to any compensation clawback or recoupment policies that may be applicable to Employee as an executive of the Company, as in effect from time to time and as approved by the Board or a duly authorized committee thereof, whether or not approved before or after the effective date of this Agreement.

(l) The parties' obligations as set forth in Sections 4 through 7 and in Sections 10 through this Section 19 of this Agreement will survive and not be affected by (i) the termination or expiration of this Agreement, (ii) the termination of Employee's employment or (iii) the execution of the Release.

[Signatures on next page]

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the day and year first above written.

EMPLOYEE:

By: */s/ Andrew A. Dahl*
Andrew A. Dahl

ZIVO BIOSCIENCE, INC.
(the "COMPANY")

By: */s/ Philip M. Rice II*
Philip M. Rice, II, CFO

EXHIBIT A
Form of Release
EMPLOYMENT AGREEMENT RELEASE

THIS RELEASE AGREEMENT (the "Release") is made as of the ____ day of _____, 20__, by and between ZIVO Bioscience Inc. (the "Company"), and Andrew A. Dahl (the "Employee") (in the aggregate, the "Parties").

WHEREAS, the Company and Employee have entered into an Amended and Restated Employment Agreement dated as of November __, 2019 (the "Employment Agreement"), pursuant to which Employee is entitled to receive certain additional compensation upon Employee's termination of employment with the Company Without Cause or for Good Reason (all as defined in the Employment Agreement); and

WHEREAS, Employee's receipt of the additional compensation under the Employment Agreement is conditioned upon the execution of this Release; and

WHEREAS, Employee's employment with the Company has been/shall be terminated effective _____ __, 20__ [without Cause] [due to Good Reason by Employee] [due to Employee's death] [due to Employee's Disability];

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, it is agreed between the Parties as follows:

1. **Severance Benefits**. In consideration for the promises set forth in this Release, and provided this release becomes effective and irrevocable, the Company shall pay Employee the additional compensation set forth in Section 11(b), 11(c), or 11(d) of the Employment Agreement, as applicable, of the Employment Agreement, in accordance with the terms of such applicable section.

2. **Release.**

   (a) In exchange for the good and valuable consideration set forth herein, Employee (or, in the event of Employee's death, Employee's legally authorized representative) agrees for himself, his heirs, administrators, representatives, executors, successors and assigns ("Releasors"), to irrevocably and unconditionally release, waive and forever discharge any and all manner of action, causes of action, claims, rights, promises, charges, suits, damages, debts, lawsuits, liabilities, rights, due controversies, charges, complaints, remedies, losses, demands, obligations, costs, expenses, fees (including, without limitation attorneys' fees), or any and all other liabilities or claims of whatsoever nature, whether arising in contract, tort, or any other theory of action, whether arising in law or in equity, whether known or unknown, choate or inchoate, matured or unmatured, contingent or fixed, liquidated or unliquidated, accrued or unaccrued, asserted or unasserted, including, but not limited to, any claim and/or claim of damages or other relief for tort, breach of contract, personal injury, negligence, age discrimination under The Age Discrimination In Employment Act of 1967 (as amended), employment discrimination prohibited by other federal, state or local laws including sex, race, national origin, marital status, age, handicap, height, weight, or religious discrimination, and any other claims of unlawful employment practices or any other unlawful criterion or circumstance which Employee and Releasors had, now have, or may have in the future against each or any of the Company, its parent, divisions, affiliates and related companies or entities, regardless of its or their form of business organization (the "Company Entities"), any predecessors, successors, joint ventures, and parents of any Company Entity, and any and all of their respective past or present directors, officers, shareholders, partners, employees, consultants, independent contractors, trustees, administrators, insurers, agents, attorneys, representative and fiduciaries, successors and assigns including without limitation all persons acting by, through, under or in concert with any of them (all collectively, the "Released Parties") arising out of or relating to her employment relationship with the Company, its predecessors, successors or affiliates and the termination thereof. Employee understands that he does not waive rights or claims that may arise after the date of this Release.

   (b) Notwithstanding anything to the contrary in this Release, Employee is not waiving any rights Employee may have to: (i) claims for earned and Base Salary and unreimbursed expenses; (i) his own vested accrued employee benefits under the Company's health, welfare, or retirement benefit plans; (iii) benefits and/or the right to seek benefits under applicable workers' compensation and/or unemployment compensation statutes; (iv) pursue claims which by law cannot be waived by signing this Release; and (v) enforce the terms and provisions of the Employment Agreement with respect to payments due to Employee upon the execution and delivery of this Release and with respect to future payments due to Employee pursuant to the terms of the Employment Agreement.

In addition, nothing in this Release prohibits Employee from filing a charge with or participating, testifying, or assisting in any investigation, hearing, whistleblower proceeding or other proceeding before any federal, state, or local government agency nor does this Release affect Employee's rights and abilities to contact, communicate with, report matters to, or otherwise participate in any whistleblower program administered by any such agencies. However, to the maximum extent permitted by law, Employee agrees that, if such an administrative claim is made, Employee shall not be entitled to recover any individual monetary relief or other individual remedies.

(c) Employee acknowledges that Employee has read this Release carefully and understands all of its terms.

(d) Employee understands and agrees that Employee has been advised to consult with an attorney prior to executing this Release.

(e) Employee understands that Employee is entitled to consider this Release for at least twenty-one (21) days before signing the Release. However, after due deliberation, Employee may elect to sign this Release without availing himself of the opportunity to consider its provisions for at least twenty-one (21) days. Employee hereby acknowledges that any decision to shorten the time for considering this Release prior to signing it is voluntary, and such decision is not induced by or through fraud, misrepresentation, or a threat to withdraw or alter the provisions set forth in this Release in the event Employee elected to consider this Release for at least twenty-one (21) days prior to signing the Release.

(f) Employee understands that Employee may revoke this Release as it relates to any potential claim that could be brought or filed under the Age Discrimination in Employment Act 29 U.S.C. §§ 621-634, within seven (7) days after the date on which he signs this Release, and that this Release as it relates to such a claim does not become effective until the expiration of the seven (7) day period. In the event that Employee wishes to revoke this Release within the seven (7) day period, Employee understands that Employee must provide such revocation in writing to the then Chief Financial Officer of the Company at the address set forth below.

(g) In agreeing to sign this Release, Employee is doing so voluntarily and agrees that Employee has not relied on any oral statements or explanations made by the Company or its representatives.

(h) This Release shall not be construed as an admission of wrongdoing by either Employee or the Company.

(i) Notwithstanding anything to the contrary in this Release, in the event a Change of Control does not occur within sixty (60) days after Employee's employment with the Company ceases, any such Release delivered to the Company (x) shall be void and without force or effect as it relates to Section 11(d) of the Employment Agreement, but (y) if applicable, shall be effective as it relates to Section 11(b) of the Employment Agreement.

3. **Notices**. Every notice relating to this Release shall be in writing and if given by mail shall be given by registered or certified mail with return receipt requested. All notices to the Company shall be delivered to the Company's Chief Financial Officer at ZIVO Bioscience Inc., 2804 Orchard Lake Rd., Suite 202, Keego Harbor, MI 48320. All notices by the Company to Employee shall be delivered to Employee personally or addressed to Employee at Employee's last residence address as then contained in the Company's records, or such other address as Employee may designate. Either party by notice to the other may designate a different address to which notices shall be addressed. Any notice given by the Company to Employee at Employee's last designated address shall be effective to bind any other person who shall acquire rights hereunder.

4. **Governing Law**. To the extent not preempted by Federal law, this Release shall be governed by and construed in accordance with the laws of the State of Michigan, without giving effect to conflicts of laws.

5. **Counterparts**. This Release may be executed in two (2) or more counterparts, all of which when taken together shall be considered one (1), and the same Release and shall become effective when the counterparts have been signed by each party and delivered to the other party; it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such facsimile signature page were an original thereof.

6. **Entire Agreement**. This Release, when aggregated with the Employment Agreement, contains the entire understanding of the parties with respect to the subject matter hereof and together supersedes all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into this Release.

IN WITNESS WHEREOF, the parties hereto have executed this Release as of the day and year first written above.

Andrew A. Dahl, Employee
ZIVO Bioscience Inc.

By: */s/*
Its:

WAIVER OF 21 DAY NOTICE PERIOD

I have been provided with the Employment Agreement Release ("Release") between ZIVO Bioscience Inc. (the "Company") and Andrew A. Dahl.

I understand that I have twenty-one (21) days from the date the Release was presented to me to consider whether or not to sign the Release. I further understand that I have the right to seek counsel prior to signing the Release.

I am knowingly and voluntarily signing and returning the Release prior to the expiration of the twenty-one (21)-day consideration period. I understand that I have seven (7) days from signing the Release to revoke the Release, by delivering a written notice of revocation to the Company's Chief Financial Officer at ZIVO Bioscience Inc., 2804 Orchard Lake Rd., Suite 202, Keego Harbor, MI 48320.

/s/ Andrew A. Dahl

Andrew A. Dahl

Dated:

Exhibit 10.34

ZIVO BIOSCIENCE, INC.
2019 OMNIBUS LONG-TERM INCENTIVE PLAN

ZIVO Bioscience, Inc., a Nevada corporation (the "Company"), sets forth herein the terms of its 2019 Omnibus Long-Term Incentive Plan (the "Plan"), as follows:

Section 1 PURPOSE

The Plan is intended to enhance the ability of the Company and the Subsidiaries and Affiliates to attract and retain highly qualified Directors, officers, key employees and other persons and to motivate such persons to serve the Company and the Subsidiaries of each of them and to improve the business results and earnings of the Company, by providing to such persons an opportunity to acquire or increase a direct proprietary interest in the operations and future success of the Company. To this end, the Plan provides for the grant of options, share appreciation rights, restricted shares, restricted share units, unrestricted shares and dividend equivalent rights. Any of these awards may, but need not, be made as performance incentives to reward attainment of performance goals in accordance with the terms hereof. Share options granted under the Plan may be incentive stock options or non-qualified options, as provided herein.

Section 2 DEFINITIONS

For purposes of interpreting the Plan and related documents (including Award Agreements and definitions in a Participant's written employment agreement), the following definitions shall apply:

2.1 **"Affiliate"** means a person or entity which controls, is controlled by, or is under common control with the Company.

2.2 **"Award"** means a grant of an Option, Share Appreciation Right, Restricted Shares, Restricted Share Units, Unrestricted Shares, Dividend Equivalent Rights or cash-based award under the Plan.

2.3 **"Award Agreement"** means a written or electronic agreement or other instrument that evidences and sets out the terms and conditions of an Award.

2.4 **"Benefit Arrangement"** shall have the meaning set forth in Section 14 hereof.

2.5 **"Board"** means the Board of Directors of the Company.

2.6 **"Cause"** means, unless otherwise provided in an applicable written employment agreement between a Participant and the Company, a Subsidiary or an Affiliate (in which case such other definition shall apply to this Plan for such Participant), (i) actual dishonesty intended to result in substantial personal enrichment at the expense of the Company or of any subsidiary of the Company, (ii) the conviction of a felony, or (iii) repeated willful and deliberate failure or refusal to perform the duties normally associated with a Participant's position which is not remedied in a reasonable period of time after receipt of written notice from the Company

2.7 **"Change in Control"** means, unless otherwise provided in an applicable written employment agreement between a Participant and the Company, a Subsidiary or an Affiliate (in which case such other definition shall apply to this Plan for such Participant), the happening of an event, which shall be deemed to have occurred upon the earliest to occur of the following events:

(i) The dissolution or liquidation of the Company;

(ii) The sale or other disposition of all or substantially all of the assets of the Company;

(iii) The merger or consolidation of the Company with or into another corporation or other entity, other than, in either case, a merger or consolidation of the Company in which holders of shares of the Company's voting securities immediately prior to the merger or consolidation will have more than 50% of the ownership of voting capital stock of the surviving corporation immediately after the merger or consolidation (on a fully diluted basis), which voting securities are to be held in the same proportion (on a fully diluted basis) as such holders ownership of voting capital stock of the Company immediately before the merger or consolidation;

(iv) The date any entity, Person or group (within the meaning of Section 13(d)(3) or Section 14(d)(2) of the Exchange Act), other than (i) the Company, or (ii) any of its Subsidiaries, or (iii) any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries, or (iv) any Affiliate (as such term is defined in Rule 405 promulgated under the Securities Act) of any of the foregoing, shall have acquired beneficial ownership of, or shall have acquired voting control over, 50% or more of the outstanding shares of the Company's voting capital stock (on a fully diluted basis), unless the transaction pursuant to which such Person, entity or group acquired such beneficial ownership or control resulted from the original issuance by the Company of shares of its voting capital stock and was approved by at least a majority of Directors who were either members of the Board on the date that this Plan was originally adopted by the Board or members of the Board for at least twelve (12) months before the date of such approval; or

(v) The first day after the date of this Plan when Directors are elected such that there is a change in the composition of the Board such that a majority of Directors have been members of the Board for less than twelve (12) months, unless the nomination for election of each new Director who was not a Director at the beginning of such twelve (12) month period was approved by a vote of at least sixty percent (60%) of the Directors then still in office who were Directors at the beginning of such period.

Notwithstanding the foregoing, the Board may provide for a different definition of a Change of Control in an Award Agreement if such Award is subject to the requirements of Code Section 409A and the Award will become payable on a Change of Control. Notwithstanding the foregoing, to the extent "Change of Control" is a payment trigger and not merely a vesting trigger for any payment provided hereunder that is not exempt from Code Section 409A, "Change of Control" means a change in the ownership or effective control of the Company, or a change in the ownership of a substantial portion of the assets of the Company, as described in Treas, Reg. Section 1.409A-3(i)(5), but replacing the term "Company" for the term "corporation" in such regulation.

2.8 **"Code"** means the Internal Revenue Code of 1986, as now in effect or as hereafter amended, and the rules and regulations promulgated thereunder.

2.9 **"Committee"** means the Compensation Committee of the Board, or, if the Board so elects, a different committee of, and designated from time to time by resolution of, the Board, which shall be constituted as provided in Section 3.1.

2.10 **"Disability"** means, unless otherwise provided in an applicable written employment agreement between a Participant and the Company, a Subsidiary or an Affiliate (in which case such other definition shall apply to this Plan for such Participant), a Participant's physical or mental condition resulting from any medically determinable physical or mental impairment that renders such Participant incapable of engaging in any substantial gainful employment and that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than 365 days. Notwithstanding the foregoing, a Participant shall not be deemed to be Disabled as a result of any condition that:

(a) Was contracted, suffered, or incurred while such Participant was engaged in, or resulted from such Participant having engaged in, a felonious activity;

(b) Resulted from an intentionally self-inflicted injury or an addiction to drugs, alcohol, or substances which are not administered under the direction of a licensed physician as part of a medical treatment plan; or

(c) Resulted from service in the Armed Forces of the United States for which such Participant received or is receiving a disability benefit or pension from the United States, or from service in the armed forces of any other country irrespective of any disability benefit or pension.

The Disability of a Participant and the date on which a Participant ceases to be employed by reason of Disability shall be determined by the Company, in accordance with uniform principles consistently applied, on the basis of such evidence as the Committee and the Company deem necessary and desirable, and its good faith determination shall be conclusive for all purposes of the Plan. The Committee or the Company shall have the right to require a Participant to submit to an examination by a physician or physicians and to submit to such reexaminations as the Committee or the Company shall require in order to make a determination concerning the Participant's physical or mental condition; provided, however, that a Participant may not be required to undergo a medical examination more often than once each 180 days, nor at any time after the normal date of the Participant's Retirement.

If any Participant engages in any occupation or employment (except for rehabilitation as determined by the Committee) for remuneration or profit, which activity would be inconsistent with the finding of Disability, or if the Committee, on the recommendation of the Company, determines on the basis of a medical examination that a Participant no longer has a Disability, or if a Participant refuses to submit to any medical examination properly requested by the Committee or the Company, then in any such event, the Participant shall be deemed to have recovered from such Disability. The Committee in its discretion may revise this definition of "Disability" for any grant, except to the extent that the Disability is a payment event under a 409A Award.

2.11 **"Dividend Equivalent Right"** means a right, granted to a Participant under Section 12 hereof, to receive cash, Shares, other Awards or other property equal in value to dividends paid with respect to a specified number of Shares, or other periodic payments.

2.12 **"Effective Date"** means the date that the Plan is approved by the Board.

2.13 **"Exchange Act"** means the Securities Exchange Act of 1934, as now in effect or as hereafter amended.

2.14 **"Fair Market Value"** means the value of a Share, determined as follows: if on the Grant Date or other determination date the Shares are listed on an established national or regional share exchange, is admitted to quotation on the New York Stock Exchange (**"NYSE"**) or is publicly traded on an established securities market, the Fair Market Value of a Share shall be the closing price of the Shares on such exchange or in such market (if there is more than one such exchange or market the Committee shall determine the appropriate exchange or market) on the Grant Date or such other determination date (or if there is no such reported closing price, the Fair Market Value shall be the mean between the highest bid and lowest asked prices or between the high and low sale prices on such trading day) or, if no sale of Shares is reported for such trading day, on the next preceding day on which any sale shall have been reported. If the Shares are not listed on such an exchange, quoted on such system or traded on such a market, Fair Market Value shall be the value of the Shares as determined by the Committee in good faith; provided that such valuation with respect to any Award that the Company intends to be a stock right not providing for the deferral of compensation under Treas. Reg. Section 1.409A-1(b)(5)(i) (Non-Qualified Options) shall be determined by the reasonable application of a reasonable valuation method, as described in Treas. Reg Section 1.409A-1(b)(5)(iv)(B).

2.15 **"Family Member"** means a person who is a spouse, former spouse, child, stepchild, grandchild, parent, stepparent, grandparent, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother, sister, brother-in-law, or sister-in-law, including adoptive relationships, of the Participant, any person sharing the Participant's household (other than a tenant or employee), a trust in which any one or more of these persons have more than fifty percent of the beneficial interest, a foundation in which any one or more of these persons (or the Participant) control the management of assets, and any other entity in which one or more of these persons (or the Participant) own more than fifty percent of the voting interests.

2.16 **"409A Award"** means any Award that is treated as a deferral of compensation subject to the requirements of Code Section 409A.

2.17 **"Good Reason"** shall mean, unless otherwise provided in an applicable written employment agreement between a Participant and the Company, a Subsidiary or an Affiliate (in which case such other definition shall apply to this Plan for such Participant), the initial existence of one or more of the following conditions arising without the consent of a Participant provided that such Participant provides notice to the Company of the existence of such condition within 90 days of the initial existence of the condition, the Company does not remedy the condition within 30 days after receiving notice, and such Participant actually terminates employment with the Company within 30 days following the Company's failure to remedy the condition:

(a) A material diminution in a Participant's base salary in effect immediately before the date of the Change in Control or as increased from time to time thereafter;

(b) A material diminution in a Participant's authority, duties, or responsibilities;

(c) A material diminution in the authority, duties, or responsibilities of the supervisor to whom a Participant is required to report, including a requirement that a Participant report to a corporate officer or employee instead of reporting directly to the Board;

(d) A material diminution in the budget over which a Participant retains authority;

(e) A material change in the geographic location at which a Participant must perform the services related to his or her position; or

(f) Any other action or inaction that constitutes a material breach by the Company of any agreement under which a Participant provides services to the Company.

2.18 **"Grant Date"** means the date on which the Committee approves an Award or such later date as may be specified by the Committee.

2.19 **"Incentive Stock Option"** means an "incentive stock option" within the meaning of Section 422 of the Code, or the corresponding provision of any subsequently enacted tax statute, as amended from time to time.

2.20 **"Non-Qualified Option"** means an Option that is not an Incentive Stock Option.

2.21 **"Option"** means an option to purchase Shares pursuant to the Plan, which may either be an Incentive Stock Option or a Non-Qualified Option.

2.22 **"Option Price"** means the exercise price for each Share subject to an Option.

2.23 **"Other Agreement"** shall have the meaning set forth in Section 14 hereof.

2.24 **"Outside Director"** means a member of the Board who is not an officer or employee of the Company, or of any Affiliate.

2.25 **"Participant"** means a person who receives or holds an Award under the Plan.

2.26 **"Performance Award"** means an Award made subject to the attainment of performance goals (as described in Section 13) over a performance period of up to 10 years.

2.27 **"Plan"** means the Zivo Bioscience, Inc. 2019 Omnibus Long-Term Incentive Plan.

2.28 **"Reorganization"** means any reorganization, merger or consolidation of the Company with one or more other entities which does not constitute a Change in Control.

2.29 **"Restricted Share"** means a Share awarded to a Participant pursuant to Section 10 hereof.

2.30 **"Restricted Share Unit"** means a bookkeeping entry representing the equivalent of a Share awarded to a Participant pursuant to Section 10 hereof.

2.31 **"Retirement"** means termination of Service with consent of the Committee on or after age 62, or any other definition established by the Committee, in its discretion, either in any Award Agreement or in writing after the grant of any Award, provided that the definition of Retirement with respect to the timing of payment (and not merely vesting) of any 409A Award cannot be changed after the Award is granted.

2.32 **"SAR Exercise Price"** means the per share exercise price of an SAR granted to a Participant under Section 9 hereof.

2.33 **"Securities Act"** means the Securities Act of 1933, as now in effect or as hereafter amended.

2.34 **"Service"** means service as a Service Provider to the Company or a Subsidiary or Affiliate. Unless otherwise stated in the applicable Award Agreement, a Participant's change in position or duties shall not result in interrupted or terminated Service, so long as such Participant continues to be a Service Provider to the Company or a Subsidiary or Affiliate. Subject to the preceding sentence, whether a termination of Service shall have occurred for purposes of the Plan shall be determined by the Committee, which determination shall be final, binding and conclusive. With respect to the timing of payment (and not merely vesting) of any 409A Award, whether a termination of Service shall have occurred shall be determined in accordance with the definition of "**Separation from Service**" under Treas. Reg. Section 1.409(A)-1(h).

2.35 **"Service Provider"** means an employee, officer or Director of the Company or a Subsidiary or Affiliate, or a consultant or adviser providing services to the Company or a Subsidiary or Affiliate.

2.36 **"Share"** or **"Shares"** means the common shares of the Company.

2.37 **"Share Appreciation Right" or "SAR"** means a right granted to a Participant under Section 9 hereof.

2.38 **"Subsidiary"** means any "subsidiary corporation" of the Company within the meaning of Section 424(f) of the Code.

2.39 **"Substitute Awards"** means Awards granted upon assumption of, or in substitution for, outstanding awards previously granted by a company or other entity acquired by the Company or a Subsidiary or Affiliate or with which the Company or a Subsidiary or Affiliate combines.

2.40 **"Ten Percent Shareholder"** means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding shares of the Company or any Subsidiary. In determining share ownership, the attribution rules of Section 424(d) of the Code shall be applied.

2.41 **"Termination Date"** means the date upon which an Option shall terminate or expire, as set forth in Section 8.3 hereof.

2.42 **"Company"** means Zivo Bioscience, Inc., a Nevada corporation.

2.43 **"Unrestricted Share Award"** means an Award pursuant to Section 11 hereof.

Section 3 ADMINISTRATION OF THE PLAN

3.1 **Committee.** The Plan shall be administered by or pursuant to the direction of the Committee. The Committee shall have such powers and authorities related to the administration of the Plan as are consistent with the governing documents of the Company and applicable law. The Committee shall have full power and authority to take all actions and to make all determinations required or provided for under the Plan, any Award or any Award Agreement and shall have full power and authority to take all such other actions and make all such other determinations not inconsistent with the specific terms and provisions of the Plan that the Committee deems to be necessary or appropriate to the administration of the Plan, any Award or any Award Agreement. Subject to the governing documents of the Company and applicable law, the Committee may delegate all or any portion of its authority under the Plan to a subcommittee of Directors and/or officers of the Company for the purposes of determining or administering Awards granted to persons who are not then subject to the reporting requirements of Section 16 of the Exchange Act. The interpretation and construction by the Committee of any provision of the Plan, any Award or any Award Agreement shall be final, binding and conclusive. The Committee shall consist of not less than two (2) members of the Board, which members shall be "**Non-Employee Directors**" as defined in Rule 16b-3 under the Exchange Act (or such greater number of members which may be required by said Rule 16b-3) and which members shall qualify as "independent" under any applicable stock exchange rules.

3.2 **Terms of Awards.** Subject to the other terms and conditions of the Plan, the Committee shall have full and final authority to:

(i) Designate Participants,

(ii) Determine the type or types of Awards to be made to a Participant,

(iii) Determine the number of Shares to be subject to an Award,

(iv) establish the terms and conditions of each Award (including, but not limited to, the exercise price of any Option, the nature and duration of any restriction or condition (or provision for lapse thereof) relating to the vesting, exercise, transfer, or forfeiture of an Award or the Shares subject thereto, and any terms or conditions that may be necessary to qualify Options as Incentive Stock Options) or to ensure exemption from or compliance with Code Section 409A,

(v) Prescribe the form of each Award Agreement evidencing an Award, and

(vi) Amend, modify, or supplement the terms of any outstanding Award. Notwithstanding the foregoing, no amendment, modification or supplement of any Award shall, without the consent of the Participant, impair the Participant's rights under such Award, or subject to the requirements of Code Section 409A any Award that was excluded from Code Section 409A coverage upon grant, and no amendment, modification or supplement of any Award that would be treated as repricing under the rules of the stock exchange or market on which the Shares are listed or quoted shall be made without approval of the Company's shareholders.

The Company may retain the right in an Award Agreement to cause a forfeiture of the gain realized by a Participant on account of actions taken by the Participant in violation or breach of or in conflict with any employment agreement, non-competition agreement, any agreement prohibiting solicitation of employees or others of the Company or a Subsidiary or Affiliate or any confidentiality obligation with respect to the Company or a Subsidiary or Affiliate or otherwise in competition with the Company or a Subsidiary or Affiliate, to the extent specified in such Award Agreement applicable to the Participant. Furthermore, unless the Committee provides otherwise in the applicable Award Agreement, the Company may annul an Award if the Participant is an employee of the Company or a Subsidiary or Affiliate and is terminated for Cause as defined in the applicable Award Agreement or the Plan, as applicable.

Notwithstanding the foregoing, no amendment or modification may be made to an outstanding Option or SAR which reduces the Option Price or SAR Exercise Price, either by lowering the Option Price or SAR Exercise Price or by canceling the outstanding Option or SAR and granting a replacement or substitute Option or SAR with a lower exercise price, or exchange any outstanding Option or SAR with cash or other awards, in each case, without the approval of Company's shareholders, provided, that, appropriate adjustments may be made to outstanding Options and SARs pursuant to Section 16.

3.3 **Deferral Arrangement.** The Committee may permit or require the deferral of any award payment into a deferred compensation arrangement, subject to compliance with the provisions of Section 17, Code Section 409A, in each case, where applicable, and such other rules and procedures as it may establish, which may include provisions for the payment or crediting of interest or dividend equivalents, including converting such credits into deferred Share equivalents and restricting deferrals to comply with hardship or unforeseeable emergency distribution rules affecting 401(k) plans and 409A Awards. Notwithstanding the foregoing, no deferral shall be allowed if the deferral opportunity would violate Code Section 409A.

3.4 **No Liability.** No member of the Board or of the Committee shall be liable for any action or determination made in good faith with respect to the Plan or any Award or Award Agreement.

3.5 **Book Entry**. Notwithstanding any other provision of this Plan to the contrary, the Company or a Subsidiary or Affiliate may elect to satisfy any requirement under this Plan for the delivery of Share certificates through the use of book-entry.

3.6 **Minimum Vesting.** Except as otherwise provided in a Participant's Award Agreement or employment agreement, subject to Section 16.3, any Award (or portion thereof) shall have a minimum vesting period of one year from the Grant Date; provided, however, that Awards (including any Unrestricted Share Award) with respect to 5% of the total Shares authorized to be issued under the Plan pursuant to Section 4 may have a vesting period of less than one year. For the avoidance of doubt, except as otherwise provided in a Participant's Award Agreement or employment agreement, subject to Section 16.3, no installment or portion of any Award may vest earlier than one year from the Grant Date.

Section 4 SHARES SUBJECT TO THE PLAN

Subject to adjustment as provided in Section 16 hereof, the aggregate number of Shares available for issuance under the Plan shall be Fifty-Two Million (52,000,000) to cover two initial grants to two Participants, plus an additional Fifty Million (50,000,000). Such One Hundred Two Million (102,000,000) Shares shall also be the aggregate number of Shares in respect of which Incentive Stock Options may be granted under the Plan. The aggregate number of Shares available under this Section 4 shall be reduced by one Share for every one Share subject to an Award under this Plan. Shares issued or to be issued under the Plan shall be authorized but unissued Shares or issued Shares that have been reacquired by the Company or a Subsidiary or Affiliate. If any Shares covered by an Award are not purchased or are forfeited, or if an Award is settled in cash in lieu of Shares or otherwise terminates without delivery of Shares subject thereto, then the number of Shares related to such Award and subject to such forfeiture or termination shall not be counted against the limit set forth above, but shall again be available for making Awards under the Plan. If an Award (other than a Dividend Equivalent Right) is denominated in Shares, the number of Shares covered by such Award, or to which such Award relates, shall be counted on the date of grant of such Award against the aggregate number of Shares available for granting Awards under the Plan as provided above. Notwithstanding the foregoing, the following Shares shall not be available for future grant: (a) Shares tendered or withheld in payment of the exercise price of an Option and (b) Shares withheld by the Company or otherwise received by the Company to satisfy tax withholding obligations in connection with an Award. In addition, all Shares covered by a SAR that were issued under the net settlement or net exercise of such SAR shall be counted against the number Shares available for issuance under the Plan and Shares purchased in the open market using Option proceeds shall not be available for future grant under the Plan.

The Committee shall have the right to substitute or assume Awards in connection with mergers, reorganizations, separations, or other transactions to which Section 424(a) of the Code or Section 1.409A-1(b)(5)(v)(D) of the Treasury Regulations applies. The number of Shares reserved pursuant to Section 4 may be increased by the corresponding number of Awards assumed and, in the case of a substitution, by the net increase in the number of Shares subject to Awards before and after the substitution.

Section 5 EFFECTIVE DATE, DURATION AND AMENDMENTS

5.1 Effective Date. The Plan shall be effective as of the Effective Date.

5.2 Term. The Plan shall terminate automatically ten (10) years after the Effective Date and may be terminated on any earlier date as provided in Section 5.3. The termination of the Plan shall not affect any Award outstanding on the date of such termination.

5.3 Amendment and Termination of the Plan. The Board may, at any time and from time to time, amend, suspend, or terminate the Plan as to any Shares as to which Awards have not been made. An amendment shall be contingent on approval of the Company's shareholders to the extent stated by the Board, required by applicable law or required by applicable stock exchange listing requirements. No Awards shall be made after termination of the Plan. No amendment, suspension or termination of the Plan shall (i) without the consent of the Participant, impair rights or obligations under any Award theretofore awarded under the Plan, nor (ii) accelerate any payment under any 409A Award except as otherwise permitted by the regulations under Section 409A of the Code. No Awards shall be granted until the Plan has been approved by the Board, and no Incentive Stock Options shall be granted until the Plan has been approved by shareholders in accordance with Code Section 422.

Section 6 AWARD ELIGIBILITY AND LIMITATIONS

6.1 Service Providers and Other Persons. Subject to this Section 6, Awards may be made under the Plan to: (i) any Service Provider to the Company or a Subsidiary or Affiliate, including any Service Provider who is an officer or Director of the Company or a Subsidiary or Affiliate, as the Committee shall determine and designate from time to time, (ii) any Outside Director and (iii) any other individual whose participation in the Plan is determined to be in the best interests of the Company by the Committee.

6.2 Successive Awards and Substitute Awards. An eligible person may receive more than one Award, subject to such restrictions as are provided herein. Notwithstanding Sections 8.1 and 9.1, the Option Price of an Option or the grant price of an SAR that is a Substitute Award may be less than 100% of the Fair Market Value of a Share on the date of grant of the Substitute Award provided that the Option Price or grant price is determined in accordance with the principles of Code Section 424 and the regulations thereunder or the principles of Treasury Regulation Section 1.409A-1(b)(5)(v)(D).

6.3 Limitation on Shares Subject to Awards. During any time when the Company has a class of equity security registered under Section 12 of the Exchange Act:

(i) The maximum number of Shares subject to Options or SARs that can be awarded under the Plan to any person eligible for an Award under this Section 6 is Thirty Five Million (35,000,000) per calendar year; and

(ii) The maximum number of Shares that can be awarded under the Plan, other than pursuant to an Option or SARs, to any person eligible for an Award under this Section 6 is Five Million (5,000,000) per calendar year.

The preceding limitations in this Section 6.3 are subject to adjustment as provided in Section 16 hereof.

Section 7 AWARD AGREEMENT

Each Award granted pursuant to the Plan shall be evidenced by an Award Agreement, in such form or forms as the Committee shall from time to time determine. Award Agreements granted from time to time or at the same time need not contain similar provisions but shall be consistent with the terms of the Plan. Each Award Agreement evidencing an Award of Options shall specify whether such Options are intended to be Non-Qualified Options or Incentive Stock Options, and in the absence of such specification such options shall be deemed Non-Qualified Options.

Section 8 TERMS AND CONDITIONS OF OPTIONS

8.1 Option Price. The Option Price of each Option shall be fixed by the Committee and stated in the Award Agreement evidencing such Option. The Option Price of each Option shall be at least the Fair Market Value on the Grant Date of a Share; **provided, however**, that in the event that a Participant is a Ten Percent Shareholder, the Option Price of an Option granted to such Participant that is intended to be an Incentive Stock Option shall be not less than 110% of the Fair Market Value of a Share on the Grant Date.

8.2 **Vesting**. Subject to Sections 8.3, 8.4, 8.5 and 16.3 hereof, each Option granted under the Plan shall become exercisable at such times and under such conditions (including based on achievement of performance goals and/or future service requirements) as shall be determined by the Committee and stated in the Award Agreement. For purposes of this Section 8.2, fractional numbers of Shares subject to an Option shall be rounded to the next nearest whole number.

8.3 **Term.** Each Option granted under the Plan shall terminate, and all rights to purchase Shares thereunder shall cease, upon the expiration of ten years from the date such Option is granted, or under such circumstances and on such date prior thereto as is set forth in the Plan or as may be fixed by the Committee and stated in the Award Agreement relating to such Option (the "**Termination Date**"); *provided, however*, that in the event that the Participant is a Ten Percent Shareholder, an Option granted to such Participant that is intended to be an Incentive Stock Option shall not be exercisable after the expiration of five years from its Grant Date.

8.4 **Termination of Service.**

(a) Unless the Committee otherwise provides in an Award Agreement or in a written employment or other agreement with the Participant, upon the termination of a Participant's Service, except to the extent that such termination is due to death, Disability, or Retirement, any Option held by such Participant that has not vested shall immediately be deemed forfeited and any otherwise vested Option or unexercised portion thereof shall terminate three (3) months after the date of such termination of Service, but in no event later than the date of expiration of the Option.

(b) Unless the Committee otherwise provides in an Award Agreement or in a written employment or other agreement with the Participant, if a Participant's Service is terminated for Cause, the Option or unexercised portion thereof shall terminate as of the date of such termination.

(c) Unless the Committee otherwise provides in an Award Agreement or in a written employment agreement with the Participant, if a Participant's Service is terminated (i) due to Retirement, any Option held by such Participant that has not vested shall immediately be deemed forfeited, subject to the Committee's discretion to accelerate the vesting of all or part of such Option, and any vested Option or Option that vests upon the Committee's exercise of its discretion shall continue in accordance with its terms and shall expire upon its normal date of expiration (except that an Incentive Stock Option shall cease to be an Incentive Stock Option upon the expiration of three (3) months from the date of the Participant's Retirement and thereafter shall be a Non-Qualified Option), (ii) due to Disability, the Option shall become fully vested and shall continue in accordance with its terms and shall expire upon its normal date of expiration (except that an Incentive Stock Option shall cease to be an Incentive Stock Option upon the expiration of twelve (12) months from the termination of the Participant's service due to Disability and thereafter shall be a Non-Qualified Option) or (iii) due to death, any Option of the deceased Participant shall become fully vested and shall continue in accordance with its terms and shall expire on its normal date of expiration (except that an Incentive Stock Option shall cease to be an Incentive Stock Option upon the expiration of twelve (12) months from the date of the Participant's death and thereafter shall be a Non-Qualified Option). Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Options issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of Service.

8.5 **Limitations on Exercise of Option**. Notwithstanding any other provision of the Plan, in no event may any Option be exercised, in whole or in part, after the occurrence of an event referred to in Section 16 hereof which results in termination of the Option.

8.6 **Method of Exercise**. An Option that is exercisable may be exercised by the Participant's delivery to the Company of written notice of exercise on any business day, at the Company's principal office, on the form specified by the Committee. Such notice shall specify the number of Shares with respect to which the Option is being exercised and, except to the extent provided in Section 8.12.3, Section 8.12.4 or Section 18.3, shall be accompanied by payment in full of the Option Price of the Shares for which the Option is being exercised, plus the amount (if any) of federal and/or other taxes which the Company or an Affiliate may, in its judgment, be required to withhold with respect to an Award. The minimum number of Shares with respect to which an Option may be exercised, in whole or in part, at any time shall be the lesser of (i) 100 Shares or such lesser number set forth in the applicable Award Agreement and (ii) the maximum number of Shares available for purchase under the Option at the time of exercise.

8.7 **Rights of Holders of Options**. A Participant holding or exercising an Option shall have none of the rights of a shareholder (for example, the right to receive cash or dividend payments or distributions attributable to the subject Shares or to direct the voting of the subject Shares) until the Shares covered thereby are fully paid and issued to the Participant. Except as provided in Section 16 hereof, no adjustment shall be made for dividends, distributions or other rights for which the record date is prior to the date of such issuance.

8.8 Delivery of Share Certificates. Promptly after the exercise of an Option to purchase Shares by a Participant and the payment in full of the Option Price, unless the Company shall then have uncertificated Shares, such Participant shall be entitled to the issuance of a Share certificate or certificates evidencing his/her ownership of the Shares purchased upon such exercise.

8.9 Transferability of Options. Except as provided in Section 8.10, during the lifetime of a Participant, only the Participant (or, in the event of legal incapacity or incompetency, the Participant's guardian or legal representative) may exercise an Option. Except as provided in Section 8.10, no Option shall be assignable or transferable by the Participant to whom it is granted, other than by will or the laws of descent and distribution. Any attempt to transfer an Option in violation of this Plan shall render such Option null and void.

8.10 Family Transfers. Unless expressly prohibited in the applicable Award Agreement, a Participant may transfer, not for value, all or part of an Option which is not an Incentive Stock Option to any Family Members. For the purpose of this Section 8.10, a "not for value" transfer is a transfer which is (i) a gift to a trust for the benefit of the participant and/or one or more Family Members, or (ii) a transfer under a domestic relations order in settlement of marital property rights. Following a transfer under this Section 8.10, any such Option shall continue to be subject to the same terms and conditions as were applicable immediately prior to transfer. Subsequent transfers of transferred Options are prohibited except in accordance with this Section 8.10 or by will or the laws of descent and distribution. The events of termination of Service of Section 8.4 hereof shall continue to be applied with respect to the original Participant, following which the Option shall be exercisable by the transferee only to the extent, and for the periods specified, in Section 8.4.

8.11 Limitations on Incentive Stock Options. An Option shall constitute an Incentive Stock Option only (i) if the Participant granted such Option is an employee of the Company or any Subsidiary of the Company; (ii) to the extent specifically provided in the related Award Agreement; (iii) to the extent that the aggregate Fair Market Value (determined at the time the Option is granted) of the Shares with respect to which all Incentive Stock Options held by such Participant become exercisable for the first time during any calendar year (under the Plan and all other plans of the Participant's employer and its Affiliates) does not exceed $100,000; and (iv) the Company's shareholders approve the Plan within one year of the date of its approval by the Board. This limitation shall be applied by taking Options into account in the order in which they were granted. Notwithstanding anything to the contrary contained herein, any Option designated as an Incentive Stock Option that fails to meet the requirements of Code Section 422 shall be a Non-Qualified Option.

8.12 Form of Payment.

8.12.1 General Rule. Payment of the Option Price for the Shares purchased pursuant to the exercise of an Option shall be made in cash or in cash equivalents acceptable to the Company.

8.12.2 Surrender of Shares. Payment of the Option Price for Shares purchased pursuant to the exercise of an Option may be made all or in part through the tender to the Company of Shares, which shall be valued, for purposes of determining the extent to which the Option Price has been paid thereby, at their Fair Market Value on the date of exercise or surrender.

8.12.3 Cashless Exercise. To the extent permitted by law, payment of the Option Price for Shares purchased pursuant to the exercise of an Option and the applicable tax withholding requirements may be made all or in part by delivery (on a form acceptable to the Committee) of an irrevocable direction to a registered securities broker acceptable to the Company to sell Shares and to deliver all or part of the sales proceeds to the Company in payment of the Option Price and any withholding taxes described in Section 18.3.

8.12.4 Other Forms of Payment. To the extent permitted by the Committee in its sole discretion, payment of the Option Price for Shares purchased pursuant to exercise of an Option may be made in any other form that is consistent with applicable laws, regulations and rules.

Section 9 TERMS AND CONDITIONS OF SHARE APPRECIATION RIGHTS

9.1 Right to Payment and Grant Price. An SAR shall confer on the Participant to whom it is granted a right to receive, upon exercise thereof, the excess of (A) the Fair Market Value of one Share on the date of exercise over (B) the grant price of the SAR as determined by the Committee. The Award Agreement for an SAR shall specify the grant price of the SAR, which shall be at least the Fair Market Value of a Share on the Grant Date. SARs may be granted in conjunction with all or part of an Option granted under the Plan or at any subsequent time during the term of such Option, in conjunction with all or part of any other Award or without regard to any Option or other Award.

9.2 **Other Terms**. The Committee shall determine at the Grant Date or thereafter, the time or times at which and the conditions under which an SAR may be exercised (including based on achievement of performance goals and/or future service requirements), the time or times at which SARs shall cease to be or become exercisable following termination of Service or upon other conditions (provided that no SAR shall be exercisable following the tenth anniversary of its Grant Date), the method of exercise, method of settlement, form of consideration payable in settlement, method by or forms in which Shares will be delivered or deemed to be delivered to Participants, whether or not an SAR shall be in tandem or in combination with any other Award, and any other terms and conditions of any SAR.

9.3 **Transferability of SARs.** Unless the Committee otherwise provides in an Award Agreement or any amendment or modification thereof, no SAR may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, otherwise than by will or by the laws of descent and distribution. Further, all SARs granted to a Participant under the Plan shall be exercisable during his or her lifetime only by such Participant. Any attempt to transfer a SAR in violation of this Plan shall render such SAR null and void.

Section 10 TERMS AND CONDITIONS OF RESTRICTED SHARES AND RESTRICTED SHARE UNITS

10.1 **Grant of Restricted Shares or Restricted Share Units**. Awards of Restricted Shares or Restricted Share Units may be made to eligible persons. Restricted Shares or Restricted Share Units may also be referred to as performance shares or performance share units. If so indicated in the Award Agreement at the time of grant, a Participant may vest in more than 100% of the number of Restricted Share Units awarded to the Participant.

10.2 **Restrictions**. Subject to Section 3.6, at the time an Award of Restricted Shares or Restricted Share Units is made, the Committee may, in its sole discretion, establish a period of time (a "**Restricted Period**") applicable to such Restricted Shares or Restricted Share Units, during which a portion of the Shares related to such Award shall become nonforfeitable or vest, on each anniversary of the Grant Date or otherwise, as the Committee may deem appropriate. Each Award of Restricted Shares or Restricted Share Units may be subject to a different Restricted Period. The Committee may, in its sole discretion, at the time a grant of Restricted Shares or Restricted Share Units is made, prescribe restrictions in addition to or other than the expiration of the Restricted Period, including the satisfaction of corporate or individual performance conditions, which may be applicable to all or any portion of the Restricted Shares or Restricted Share Units in accordance with Section 13.1 and 13.2. Neither Restricted Shares nor Restricted Share Units may be sold, transferred, assigned, pledged or otherwise encumbered or disposed of during the Restricted Period or prior to the satisfaction of any other restrictions prescribed by the Committee with respect to such Restricted Shares or Restricted Share Units. Each Participant may designate a beneficiary upon his or her death for the Restricted Shares or Restricted Share Units awarded to him or her under the Plan. If a Participant fails to designate a beneficiary, the Participant shall be deemed to have designated his or her estate as his or her beneficiary. Any attempt to transfer an Award of Restricted Shares or Restricted Share Units in violation of this Plan shall render such Award null and void.

10.3 **Restricted Shares Certificates**. The Company shall issue, in the name of each Participant to whom Restricted Shares have been granted, Share certificates representing the total number of Restricted Shares granted to the Participant, as soon as reasonably practicable after the Grant Date. The Committee may provide in an Award Agreement that either (i) the Company shall hold such certificates for the Participant's benefit until such time as the Restricted Shares are forfeited to the Company or the restrictions lapse, or (ii) such certificates shall be delivered to the Participant, *provided, however*, that such certificates shall bear a legend or legends that comply with the applicable securities laws and regulations and makes appropriate reference to the restrictions imposed under the Plan and the Award Agreement.

10.4 **Rights of Holders of Restricted Shares**. Unless the Committee otherwise provides in an Award Agreement, holders of Restricted Shares shall have the right to vote such Shares and the right to receive any dividends or distributions declared or paid with respect to such Shares. All distributions, if any, received by a Participant with respect to Restricted Shares as a result of any share split, share dividend, combination of shares, or other similar transaction shall be subject to the restrictions applicable to the original Award. If any such dividends or distributions are paid in cash, unless otherwise specified in the Award Agreement, the right to receive such cash payments shall be subject to the same restrictions on transferability as the Restricted Shares with respect to which they are paid, and shall be accumulated during the Restricted Period and paid or forfeited when the Restricted Shares vest or are forfeited. In no event shall any cash dividend or distribution be paid later than 2½ months after the end of the tax year in which the applicable Restricted Period ends.

10.5 **Rights of Holders of Restricted Share Units.**

10.5.1 Dividend Equivalent Rights. Unless the Committee otherwise provides in an Award Agreement, holders of Restricted Share Units shall have no rights as shareholders of the Company including the right to direct the voting of the subject Shares underlying a Restricted Share Unit Award. A holder of a Restricted Share Units shall not have the right to receive Dividend Equivalent Rights to the extent such Restricted Share Units are not vested.

10.5.2 Creditor's Rights. A holder of Restricted Share Units shall have no rights other than those of a general creditor of the Company. Restricted Share Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Award Agreement.

10.6 Termination of Service. Unless the Committee otherwise provides in an Award Agreement or in a written agreement with the Participant after the Award Agreement is issued, upon the termination of a Participant's Service, any Restricted Shares or Restricted Share Units held by such Participant that have not vested, or with respect to which all applicable restrictions and conditions have not lapsed, shall immediately be deemed forfeited, except to the extent that such termination is due to death, Disability, or Retirement. Further, the Award Agreement may specify that the vested portion of the Award shall continue to be subject to the terms of any applicable transfer or other restriction. Unless the Committee otherwise provides in an Award Agreement or in a written agreement with the Participant after the Award Agreement is issued, if a Participant's Service is terminated due to (i) death or Disability, any outstanding Award of Restricted Shares or Restricted Share Units shall be fully vested, and the Shares subject to such Awards shall be delivered in accordance with the terms of Section 10.7 below; or (ii) due to Retirement, any outstanding Award of Restricted Shares or Restricted Share Units shall be forfeited, subject to the Committee's discretion to accelerate all or part of such Award, and the Shares subject to such Awards that are not forfeited shall be delivered in accordance with the terms of Section 10.7 below; provided, however, in the case of any Award relating to Restricted Share Units, the Shares subject to such Award shall be delivered in accordance with their original vesting schedule. Upon forfeiture of any Restricted Shares or Restricted Share Units, a Participant shall have no further rights with respect to such Award, including but not limited to any right to vote Restricted Shares or any right to receive dividends with respect to Restricted Shares or Restricted Share Units.

10.7 Delivery of Shares. Except as otherwise specified in an Award Agreement with respect to a particular Award of Restricted Shares or unless the Company shall then have uncertificated Shares, within thirty (30) days of the expiration or termination of the Restricted Period, a certificate or certificates representing all Shares relating to such Award which have not been forfeited shall be delivered to the Participant or to the Participant's beneficiary or estate, as the case may be. Except as otherwise specified with respect to a particular Award of Restricted Share Units or unless the Company shall then have uncertificated Shares, within thirty (30) days of the satisfaction of the vesting criterion applicable to such Award, a certificate or certificates representing all Shares relating to such Award which have vested shall be issued or transferred to the Participant.

Section 11 TERMS AND CONDITIONS OF UNRESTRICTED SHARE AWARDS

The Committee may, in its sole discretion, grant (or sell at such purchase price determined by the Committee) an Unrestricted Share Award to any Participant pursuant to which such Participant may receive Shares free of any restrictions ("**Unrestricted Shares**") under the Plan. Unrestricted Share Awards may be granted or sold as described in the preceding sentence in respect of past services and other valid consideration, or in lieu of, or in addition to, any cash compensation due to such Participant.

Section 12 TERMS AND CONDITIONS OF DIVIDEND EQUIVALENT RIGHTS

12.1 Dividend Equivalent Rights. A Dividend Equivalent Right is an Award entitling the recipient to receive credits based on cash distributions that would have been paid on the Shares specified in the Dividend Equivalent Right (or other Award to which it relates) if such Shares had been issued to and held by the recipient. A Dividend Equivalent Right may be granted hereunder to any Participant, provided that any Award of Dividend Equivalent Rights shall comply with, or be exempt from, Code Section 409A. Dividend Equivalent Rights may not be granted hereunder relating to Shares which are subject to Options or Share Appreciation Rights. Notwithstanding any other provision of the Plan, no dividend or Dividend Equivalent Right shall provide for any crediting or payment on any Award or portion of an Award that is not vested. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award. Dividend Equivalent Rights may be settled in cash or Shares or a combination thereof, in a single installment or installments, all determined in the sole discretion of the Committee. A Dividend Equivalent Right granted as a component of another Award may provide that such Dividend Equivalent Right shall be settled upon exercise, settlement, or payment of, or lapse of restrictions on, such other Award, unless such settlement would cause an Award that is otherwise exempt from Code Section 409A to become subject to and not in compliance with Code Section 409A (e.g., in the case of a Non-Qualified Option). Such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award. A Dividend Equivalent Right granted as a component of another Award may also contain terms and conditions different from such other Award.

12.2 Termination of Service. Except as may otherwise be provided by the Committee either in the Award Agreement or in a written agreement with the Participant after the Award Agreement is issued, a Participant's rights in all Dividend Equivalent Rights shall automatically terminate upon the Participant's termination of Service for any reason.

Section 13 TERMS AND CONDITIONS OF PERFORMANCE AWARDS

13.1 Performance Conditions. The right of a Participant to exercise or receive a grant or settlement of any Performance Award, and the timing thereof, may be subject to such corporate or individual performance conditions as may be specified by the Committee. The Committee may use such business criteria and other measures of performance as it may deem appropriate in establishing any performance conditions, and may exercise its discretion to reduce the amounts payable under any Award subject to performance conditions.

13.2 Performance Awards. If and to the extent that the Committee determines to grant a Performance Award to a Participant, the grant, exercise and/or settlement of such Performance Award may be contingent upon achievement of pre-established performance goals and other terms set forth in this Section 13.2.

13.2.1 Performance Goals Generally. The performance goals for such Performance Awards may consist of one or more business criteria and a targeted level or levels of performance with respect to each of such criteria, as specified by the Committee consistent with this Section 13.2. Performance goals may be objective and may require that the level or levels of performance targeted by the Committee result in the achievement of performance goals that are "substantially uncertain." The Committee may determine that such Performance Awards shall be granted, exercised and/or settled upon achievement of any one performance goal or that two or more of the performance goals must be achieved as a condition to grant, exercise and/or settlement of such Performance Awards. Performance goals may differ for Performance Awards granted to any one Participant or to different Participants.

13.2.2 Business Criteria. One or more of the business criteria for the Company, on a consolidated basis, and/or specified Subsidiaries or business units of the Company or the Company (except with respect to the total shareholder return and earnings per share criteria), may be used by the Committee in establishing performance goals for such Performance Awards, including without limitation: (1) total shareholder return (share price appreciation plus dividends), (2) net income, (3) earnings per share, (4) return on equity, (5) return on assets, (6) return on invested capital, (7) increase in the market price of Shares or other securities, (8) revenues, (9) net operating income, (10) operating margin (operating income divided by revenues), (11) earnings before interest, taxes, depreciation and amortization (EBITDA) or adjusted EBITDA, (12) the performance of the Company in any one or more of the items mentioned in clauses (1) through (11) in comparison to the average performance of the companies used in a self-constructed peer group for measuring performance under an Award, or (13) the performance of the Company in any one or more of the items mentioned in clauses (1) through (11) in comparison to a budget or target for measuring performance under an Award. Business criteria may be measured on an absolute basis or on a relative basis (i.e., performance relative to peer companies) and on a GAAP or non-GAAP basis.

13.2.3 Timing For Establishing Performance Goals. Performance goals shall be established, in writing, not later than 90 days or such later time after the beginning of any performance period applicable to such Performance Awards.

13.2.4 Settlement of Performance Awards; Other Terms. Settlement of such Performance Awards shall be in cash, Shares, other Awards or other property, in the discretion of the Committee. The Committee may, in its discretion, reduce the amount of a settlement otherwise to be made in connection with such Performance Awards. The Committee shall specify in the Award Agreement the circumstances in which such Performance Awards shall be paid or forfeited in the event of termination of Service by the Participant prior to the end of a performance period or settlement of Performance Awards. Notwithstanding the foregoing, unless the Committee otherwise provides in an Award Agreement, if a Participant's service is terminated (i) for any reason other than death, Disability or Retirement, any unvested and unearned portion of such Award shall be immediately forfeited; (ii) due to a Participant's death or Disability, the Award shall be fully vested and settled at the end of the applicable performance period based on and if required by the Committee in its discretion following, certification by the Committee regarding the achievement of the performance goals applicable to such Award; and (iii) due to a Participant's Retirement, any unvested and unearned portion of such Award shall be immediately forfeited subject to the Committee's discretion to accelerate the vesting of such Award based on the actual achievement of any applicable performance goals.

13.3 Committee Determinations. All determinations as to the establishment of performance goals, the amount of any Performance Award pool or potential individual Performance Awards and as to the achievement of performance goals relating to Performance Awards shall be made by the Committee.

13.4 Dividends or Dividend Equivalent Rights for Performance Awards. Notwithstanding anything to the foregoing, the right to receive dividends, Dividend Equivalent Rights or distributions with respect to a Performance Award shall only be granted to a Participant if and to the extent that the underlying Award is vested and earned by the Participant.

Section 14 PARACHUTE LIMITATIONS.

Notwithstanding any other provision of this Plan or of any other agreement, contract, or understanding heretofore or hereafter entered into by a Participant with the Company or a Subsidiary or affiliate, except an agreement, contract, policy or understanding entered into that expressly references and modifies or excludes application of this paragraph (an "**Other Agreement**"), and notwithstanding any formal or informal plan or other arrangement for the direct or indirect provision of compensation to the Participant (including groups or classes of Participants or beneficiaries of which the Participant is a member), whether or not such compensation is deferred, is in cash, or is in the form of a benefit to or for the Participant (a "**Benefit Arrangement**"), if the Participant is a "disqualified individual," as defined in Section 280G(c) of the Code, any Option, Restricted Shares, Restricted Share Units or Performance Award held by that Participant and any right to receive any payment or other benefit under this Plan shall not become exercisable or vested and shall not be settled (i) to the extent that such right to exercise, vesting, payment, or benefit, taking into account all other rights, payments, or benefits to or for the Participant under this Plan, all Other Agreements, and all Benefit Arrangements, would cause any payment or benefit to the Participant under this Plan to be considered a "parachute payment" within the meaning of Section 280G(b)(2) of the Code as then in effect (a "**Parachute Payment**") and (ii) if, as a result of receiving a Parachute Payment, the aggregate after-tax amounts received by the Participant from the Company under this Plan, all Other Agreements, and all Benefit Arrangements would be less than the maximum after-tax amount that could be received by the Participant without causing any such payment or benefit to be considered a Parachute Payment. In the event that the receipt of any such right to exercise, vesting, payment, or benefit under this Plan, in conjunction with all other rights, payments, or benefits to or for the Participant under any Other Agreement or any Benefit Arrangement would cause the Participant to be considered to have received a Parachute Payment under this Plan that would have the effect of decreasing the after-tax amount received by the Participant as described in clause (ii) of the preceding sentence those rights, payments, or benefits under this Plan, any Other Agreements, and any Benefit Arrangements that are to be reduced or eliminated so as to avoid having the payment or benefit to the Participant under this Plan be deemed to be a Parachute Payment shall be determined in the following order and priority: first, there shall be reduced or eliminated any such right, payment or benefit that is excluded from the coverage of Code Section 409A, and then there shall be reduced or eliminated any right, payment or benefit that is subject to Code Section 409A (with the reduction in rights, payments or benefits subject to Code Section 409A occurring in the reverse chronological order in which such rights, payments or benefits would otherwise be or become vested, exercisable or settled).

Section 15 REQUIREMENTS OF LAW

15.1 General. The Company shall not be required to sell, deliver or cause to be issued any Shares under any Award if the sale or issuance of such Shares would constitute a violation by the Participant, any other individual exercising an Option or receiving the benefit of an Award, or the Company of any provision of any law or regulation of any governmental authority, including without limitation any federal or state securities laws or regulations. If at any time the Company shall determine, in its discretion, that the listing, registration or qualification of any Shares subject to an Award upon any securities exchange or under any governmental regulatory body is necessary or desirable as a condition of, or in connection with, the issuance or purchase of shares hereunder, no Shares may be issued or sold to the Participant or any other individual exercising an Option pursuant to such Award unless such listing, registration, qualification, consent or approval shall have been effected or obtained free of any conditions not acceptable to the Company, and any delay caused thereby shall in no way affect the date of termination of the Award. Any determination in this connection by the Company shall be final, binding, and conclusive. The Company may, but shall in no event be obligated to, cause to be registered any securities covered hereby pursuant to the Securities Act. The Company shall not be obligated to take any affirmative action in order to cause the exercise of an Option or the issuance of Shares pursuant to the Plan to comply with any law or regulation of any governmental authority.

15.2 Rule 16b-3. During any time when the Company has a class of equity security registered under Section 12 of the Exchange Act, it is the intent of the Company that Awards pursuant to the Plan and the exercise of Options granted hereunder will qualify for the exemption provided by Rule 16b-3 under the Exchange Act. To the extent that any provision of the Plan or action by the Committee does not comply with the requirements of Rule 16b-3, it shall be deemed inoperative to the extent permitted by law and deemed advisable by the Committee and shall not affect the validity of the Plan. In the event that Rule 16b-3 is revised or replaced, the Board may exercise its discretion to modify this Plan in any respect necessary to satisfy the requirements of, or to take advantage of any features of, the revised exemption or its replacement.

Section 16 EFFECT OF CHANGES IN CAPITALIZATION

16.1 Changes in Shares. If the number of outstanding Shares is increased or decreased or the Shares are changed into or exchanged for a different number or kind of shares or other securities of the Company on account of any recapitalization, reclassification, share split, reverse split, combination of shares, exchange of shares, share dividend or other distribution payable in capital stock, or other increase or decrease in such Shares effected without receipt of consideration by the Company, occurring after the Effective Date, the number and kinds of Shares for which grants of Options and other Awards may be made under the Plan shall be adjusted proportionately and accordingly by the Company. In addition, the number and kind of Shares for which Awards are outstanding shall be adjusted proportionately and accordingly so that the proportionate interest of the Participant immediately following such event shall, to the extent practicable, be the same as immediately before such event. Any such adjustment in outstanding Options or SARs shall not change the aggregate Option Price or SAR Exercise Price payable with respect to Shares that are subject to the unexercised portion of an outstanding Option or SAR, as applicable, but shall include a corresponding proportionate adjustment in the Option Price or SAR Exercise Price per Share; *provided, however*, that all adjustments shall be made in compliance with Code Section 409A or Code Section 422, as applicable. The conversion of any convertible securities of the Company shall not be treated as an increase in Shares effected without receipt of consideration. Notwithstanding the foregoing, in the event of any distribution to the Company's shareholders of securities of any other entity or other assets (including an extraordinary cash dividend but excluding a non-extraordinary dividend payable in cash or in shares of the Company) without receipt of consideration by the Company, the Company may, in such manner as the Company deems appropriate, adjust (i) the number and kind of Shares subject to outstanding Awards and/or (ii) the exercise price of outstanding Options and Share Appreciation Rights to reflect such distribution.

16.2 Reorganization.

16.2.1 Company is the Surviving Entity. Subject to Section 16.3 hereof, if the Company shall be the surviving entity in any Reorganization, any then outstanding Option or SAR shall pertain to and apply to the securities to which a holder of the number of Shares subject to such Option or SAR would have been entitled immediately following such Reorganization, with a corresponding proportionate adjustment of the Option Price or SAR Exercise Price per share so that the aggregate Option Price or SAR Exercise Price thereafter shall be the same as the aggregate Option Price or SAR Exercise Price of the Shares remaining subject to the Option or SAR immediately prior to such Reorganization; provided, however, that all adjustments shall be made in compliance with Code Section 409A. Subject to any contrary language in an Award Agreement, any restrictions applicable to such Award shall apply as well to any replacement securities received by the Participant as a result of the Reorganization. In the event of a Reorganization described in the preceding sentence, any outstanding Restricted Share Units shall be adjusted so as to apply to the securities that a holder of the number of Shares subject to the Restricted Share Units would have been entitled to receive immediately following such transaction; provided, however, that all adjustments shall be made in compliance with Code Section 409A.

16.2.2 Company is not the Surviving Entity. Subject to Section 16.3 hereof, if the Company shall not be the surviving entity in the event of any Reorganization, the Committee in its discretion may provide for the assumption or continuation of any outstanding Options, SARs, Restricted Shares and Restricted Share Units, or for the substitution for such Options, SARs, Restricted Shares and Restricted Share Units of new options, share appreciation rights, restricted shares and restricted shares units relating to the shares of stock of a successor entity, or a parent or subsidiary thereof, with appropriate adjustments as to the number of shares (disregarding any consideration that is not common shares) and option and share appreciation right exercise prices, in which event the outstanding Options, SARs, Restricted Shares and Restricted Share Units shall continue in the manner and under the terms (assumption or substitution) so provided. Appropriate adjustments shall be made in compliance with Code Section 409A, including the provisions of Treas. Reg. Section 1.409A-1(b)(5)(v)(D) regarding substitutions and assumptions of stock rights by reason of a corporate transaction. Notwithstanding the foregoing, in the event such successor entity (or a parent or subsidiary thereof) refuses to assume or substitute Awards as provided above, pursuant to a Reorganization described in this Section 16.2.2, such nonassumed or nonsubstituted Awards shall have their vesting accelerate as to all shares subject to such Award, with any Performance Awards being deemed to have vested at their target levels.

16.3 Change in Control.

16.3.1 Accelerated Vesting and Payment. Subject to the provisions of Section 16.3.2 below and except as otherwise provided for in an Award Agreement, in the event of a Change in Control in which the successor/acquirer company does not issue Alternative Awards (as defined below) within the meaning of Section 16.3.2, all outstanding Awards shall immediately become vested, with any Performance Awards being deemed to have vested at their target levels. Notwithstanding anything to the contrary contained in this Section 16.3, the treatment of any 409A Award in connection with a Change in Control shall be governed by Section 17 and the requirements of Code Section 409A.

16.3.2 Alternative Awards. Notwithstanding Section 16.3.1, no cancellation, acceleration of exercisability, vesting, cash settlement or other payment shall occur with respect to any Option, Share Appreciation Right, Restricted Share or Restricted Share Unit if the Committee reasonably determines in good faith prior to the occurrence of a Change in Control that such Award shall be honored or assumed, or new rights substituted therefor (such honored, assumed or substituted award hereinafter called an "**Alternative Award**"), by a Participant's employer (or the parent or an affiliate of such employer) immediately following the Change in Control; provided that any such Alternative Award must:

(a) Be based on stock which is traded on an established securities market;

(b) Provide such Participant with rights and entitlements substantially equivalent to or better than the rights, terms and conditions applicable under such award, including, but not limited to, an identical or better exercise or vesting schedule and identical or better timing and methods of payment;

(c) Have substantially equivalent economic value to such award (determined at the time of the Change in Control in accordance with principles applicable under Section 424 of the Internal Revenue Code);

(d) Have terms and conditions which provide that in the event that a Participant's Service is involuntarily terminated by the successor employer without Cause or by a Participant for Good Reason, in either case within the one-year period following the Change in Control, all of such Participant's Option and/or SARs shall be deemed immediately and fully exercisable, the Restricted Period shall lapse as to each of such Participant's outstanding Restricted Share or Restricted Share Unit Awards, and each such Alternative Award shall be settled for a payment per each share of stock subject to the Alternative Award in cash, in immediately transferable, publicly traded securities or in a combination thereof, in an amount equal to, in the case of an Option or SAR, the excess of the Fair Market Value of such stock on the date of the Participant's termination of Service over the corresponding exercise or base price per share and, in the case of any Restricted Shares or Restricted Share Unit award, the Fair Market Value of the number of shares of Common Stock subject or related thereto; and

(e) Solely with respect to any Performance Awards, be converted into restricted share awards at the target levels, with any new "restricted period" based on the remaining performance period previously applicable to such Performance Awards.

16.3.3 No Amendment. Notwithstanding Section 5.3, the provisions of this Section 16.3 may not be amended in any respect for two years following a Change in Control.

16.4 Adjustments. Adjustments under this Section 16 related to Shares or other securities of the Company shall be made by the Committee, whose determination in that respect shall be final, binding and conclusive. No fractional Shares or other securities shall be issued pursuant to any such adjustment, and any fractions resulting from any such adjustment shall be eliminated in each case by rounding down to the nearest whole Share. The Committee shall determine the effect of a Change in Control upon Awards other than Options, SARs, Restricted Shares and Restricted Share Units and such effect shall be set forth in the appropriate Award Agreement. The Committee may provide in the Award Agreements at the Grant Date, or any time thereafter with the consent of the Participant, for different provisions to apply to an Award in place of those described in Sections 16.1, 16.2 and 16.3.

16.5 No Limitations on Company. The making of Awards pursuant to the Plan shall not affect or limit in any way the right or power of the Company or a Subsidiary or Affiliate to make adjustments, reclassifications, reorganizations, or changes of its capital or business structure or to merge, consolidate, dissolve, or liquidate, or to sell or transfer all or any part of its business or assets.

Section 17 CODE SECTION 409A

17.1 Generally. This Plan and any Award granted hereunder is intended to comply with, or be exempt from, the provisions of Code Section 409A, and shall be interpreted and administered in a manner consistent with that intention.

17.2 409A Awards. The provisions of this Section 17 shall apply to any 409A Award or any portion an Award that is or becomes subject to Code Section 409A, notwithstanding any provision to the contrary contained in the Plan or the Award Agreement applicable to such Award. 409A Awards include, without limitation:

17.2.1 Any Non-Qualified Option or SAR that permits the deferral of compensation other than the deferral of recognition of income until the exercise of the Award; and

17.2.2 Any other Award that either (i) provides by its terms for settlement of all or any portion of the Award on one or more dates following the Short-Term Deferral Period (as defined below), or (ii) permits or requires the Participant to elect one or more dates on which the Award will be settled.

Subject to any applicable U.S. Treasury Regulations promulgated pursuant to Section 409A or other applicable guidance, the term "**Short-Term Deferral Period**" means the period ending on the later of (i) the date that is 2 ½ months from the end of the Company's fiscal year in which the applicable portion of the Award is no longer subject to a "substantial risk of forfeiture", or (ii) the date that is 2 ½ months from the end of the Participant's taxable year in which the applicable portion of the Award is no longer subject to a substantial risk of forfeiture. For this purpose, the term "**substantial risk of forfeiture**" shall have the meaning set forth in any applicable U.S. Treasury Regulations promulgated pursuant to Code Section 409A or other applicable guidance.

17.3 Deferral and/or Payment Elections. Except as otherwise permitted or required by Section 409A or any applicable Treasury Regulations promulgated pursuant to Code Section 409A or other applicable guidance, the following rules shall apply to any deferral and/or payment elections (each, an "**Election**") that may be permitted or required by the Committee pursuant to a 409A Award:

17.3.1 All Elections must be in writing and specify the amount of the payment in settlement of an Award being deferred, as well as the time and form of payment as permitted by this Plan;

17.3.2 All Elections shall be made by the end of the Participant's taxable year prior to the year in which services commence for which an Award may be granted to such Participant; provided, however, that if the Award qualifies as "performance-based compensation" for purposes of Code Section 409A and is based on services performed over a period of at least twelve (12) months, then the Election may be made no later than six (6) months prior to the end of such period; and

17.3.3 Elections shall continue in effect until a written election to revoke or change such Election is received by the Company, except that a written election to revoke or change such Election must be made prior to the last day for making an Election determined in accordance with Section 17.3.2 above or as permitted by Section 17.4.

17.4 Subsequent Elections. Any 409A Award in respects to which the Committee permits a subsequent Election to delay the payment or change the form of payment in settlement of such Award shall comply with the following requirements:

17.4.1 No subsequent Election may take effect until at least twelve (12) months after the date on which the subsequent Election is made;

17.4.2 Each subsequent Election related to a payment in settlement of an Award not described in Section 17.5.2, 17.5.3 or 17.5.6 must result in a delay of the payment for a period of not less than five (5) years from the date such payment would otherwise have been made; and

17.4.3 No subsequent Election related to a payment pursuant to Section 17.5.4 shall be made less than twelve (12) months prior to the date of the first scheduled installment relating to such payment.

17.5 Payments Pursuant to Deferral Elections. No payment in settlement of a 409A Award may commence earlier than:

17.5.1 Separation from service (as determined pursuant to Treasury Regulations or other applicable guidance);

17.5.2 The date the Participant's Service terminates due to Disability;

17.5.3 Death;

17.5.4 A specified time (or pursuant to a fixed schedule) that is either (i) specified by the Committee upon the grant of an Award and set forth in the Award Agreement evidencing such Award, or (ii) specified by the Participant in an Election complying with the requirements of Section 17.3 and/or 17.4, as applicable;

17.5.5 To the extent provided by Treasury Regulations promulgated pursuant to Code Section 409A or other applicable guidance, a change in the ownership or effective control or the Company or in the ownership of a substantial portion of the assets of the Company; or

17.5.6 The occurrence of an Unforeseeable Emergency.

Notwithstanding anything else herein to the contrary, to the extent that a Participant is a '**Specified Employee**" (as determined in accordance with the requirements of Code Section 409A), no payment pursuant to Section 17.5.1 in settlement of a 409A Award may be made before the date which is six (6) months after such Participant's date of Separation from Service, or, if earlier, the date of the Participant's death.

17.6 Unforeseeable Emergency. The Committee shall have the authority to provide in the Award Agreement evidencing any 409A Award for payment in settlement of all or a portion of such Award in the event that a Participant establishes, to the satisfaction of the Committee, the occurrence of an Unforeseeable Emergency (as defined in Code Section 409A). In such event, the amount(s) distributed with respect to such Unforeseeable Emergency cannot exceed the amounts necessary to satisfy such Unforeseeable Emergency plus amounts necessary to pay taxes reasonably anticipated as a result of such payment(s), after taking into account the extent to which such hardship is or may be relieved through reimbursement or compensation by insurance or otherwise, by cancellation of any deferral election previously made by the Participant or by liquidation of the Participant's assets (to the extent the liquidation of such assets would not itself cause severe financial hardship). All payments with respect to an Unforeseeable Emergency shall be made in a lump sum as soon as practicable following the Committee's determination that an Unforeseeable Emergency has occurred. The occurrence of an Unforeseeable Emergency shall be judged and determined by the Committee. The Committee's decision with respect to whether an Unforeseeable Emergency has occurred and the manner in which, if at all, the payment in settlement of an Award shall be altered or modified, shall be final, conclusive, and not subject to approval or appeal.

17.7 No Acceleration of Payments. Notwithstanding anything to the contrary herein, this Plan does not permit the acceleration of the time or schedule of any payment under this Plan in settlement of a 409A Award, except as permitted by Code Section 409A and/or Treasury Regulations promulgated pursuant to Code Section 409A or other applicable guidance.

Section 18 GENERAL PROVISIONS

18.1 Disclaimer of Rights. No provision in the Plan or in any Award or Award Agreement shall be construed to confer upon any individual the right to remain in the employ or service of the Company or a Subsidiary or Affiliate, or to interfere in any way with any contractual or other right or authority of the Company or a Subsidiary or Affiliate either to increase or decrease the compensation or other payments to any individual at any time, or to terminate any employment or other relationship between any individual and the Company or a Subsidiary or Affiliate. In addition, notwithstanding anything contained in the Plan to the contrary, unless otherwise stated in the applicable Award Agreement, no Award granted under the Plan shall be affected by any change of duties or position of the Participant, so long as such Participant continues to be a Director, officer, consultant or employee of the Company or a Subsidiary or Affiliate. The obligation of the Company to pay any benefits pursuant to this Plan shall be interpreted as a contractual obligation to pay only those amounts described herein, in the manner and under the conditions prescribed herein. The Plan shall in no way be interpreted to require the Company to transfer any amounts to a third party or otherwise hold any amounts in trust or escrow for payment to any Participant or beneficiary under the terms of the Plan.

18.2 **Nonexclusivity of the Plan**. Neither the adoption of the Plan nor the submission of the Plan to the Company's shareholders for approval shall be construed as creating any limitations upon the right and authority of the Board to adopt such other incentive compensation arrangements (which arrangements may be applicable either generally to a class or classes of individuals or specifically to a particular individual or particular individuals) as the Board in its discretion determines desirable, including, without limitation, the granting of options otherwise than under the Plan.

18.3 **Withholding Taxes**. The Company or a Subsidiary or Affiliate, as the case may be, shall have the right to deduct from payments of any kind otherwise due to a Participant (or require a Participant to pay) any federal, state, or local taxes of any kind required by law to be withheld with respect to the vesting of or other lapse of restrictions applicable to an Award or upon the issuance of any Shares upon the exercise of an Option or pursuant to an Award. At the time of such vesting, lapse, or exercise, the Participant shall pay to the Company or a Subsidiary or Affiliate, as the case may be, any amount that the Company or a Subsidiary or Affiliate may reasonably determine to be necessary to satisfy such withholding obligation. A Participant may elect to use the cashless exercise procedure described in Section 8.12.3 to satisfy the applicable withholding obligation, or the Company may elect to, or may cause a Subsidiary or Affiliate to withhold Shares otherwise issuable to the Participant in satisfaction of a Participant's withholding obligations not to exceed the statutory maximum withholding rate. The Participant may elect to satisfy such obligations, in whole or in part, by delivering to the Company or a Subsidiary or Affiliate Shares already owned by the Participant. Any Shares so delivered or withheld shall have an aggregate Fair Market Value equal to such withholding obligations not to exceed the statutory maximum withholding rate. The Fair Market Value of the Shares used to satisfy such withholding obligation shall be determined by the Company as of the date that the Shares are withheld. A Participant who is permitted to make and who has made an election pursuant to this Section 18.3 to deliver Shares may satisfy his/her withholding obligation only with Shares that are not subject to any repurchase, forfeiture, unfulfilled vesting, or other similar requirements.

18.4 **Captions.** The use of captions in this Plan or any Award Agreement is for the convenience of reference only and shall not affect the meaning of any provision of the Plan or such Award Agreement.

18.5 **Other Provisions.** Each Award granted under the Plan may contain such other terms and conditions not inconsistent with the Plan as may be determined by the Committee, in its sole discretion.

18.6 **Number and Gender**. With respect to words used in this Plan, the singular form shall include the plural form, the masculine gender shall include the feminine gender, etc., as the context requires.

18.7 **Severability.** If any provision of the Plan or any Award Agreement shall be determined to be illegal or unenforceable by any court of law in any jurisdiction, the remaining provisions hereof and thereof shall be severable and enforceable in accordance with their terms, and all provisions shall remain enforceable in any other jurisdiction.

18.8 **Governing Law.** The validity and construction of this Plan and the instruments evidencing the Awards hereunder shall be governed by the laws of the State of Michigan, other than any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Plan and the instruments evidencing the Awards granted hereunder to the substantive laws of any other jurisdiction.

18.9 **Compensation Recoupment Policy**. Notwithstanding any provision in the Plan, in any Award, or in any employment, consulting or severance agreement with the Company or any Subsidiary, all Awards under this Plan shall be subject to any compensation recoupment, other compensation recovery, or clawback policy of the Company that may be applicable to any Participant, as in effect from time to time and as approved by the Committee or the Board.

18.10 **Complete Statement of Plan**. This document is a complete statement of the Plan.

As adopted by the Board as of November 20, 2019.

ZIVO Bioscience, Inc.

By: */s/ Philip M. Rice II*
Philip M. Rice II
Its: Chief Financial Officer

March 4, 2020
Mr. Philip M. Rice II
13437 Redmonds Hill Ct.
Chelsea, MI 48118

Re: Letter Agreement of Employment for Philip M. Rice II ("Employee")

Dear Mr. Rice:

The purpose of this letter is to formalize the terms and conditions of your employment, and your employment relationship, with ZIVO Bioscience Inc., a Nevada corporation (the "Company"). Your execution of this letter (this "Agreement") will represent your acceptance of all of the terms set forth below.

1. Term. Subject to the termination provisions set forth inSection 9 below, Employee shall be employed by the Company under this Agreement beginning on January 1, 2020 (the "Effective Date") and continuing thereafter for a period ending December 31, 2020 (the "Initial Term"); provided, however, that following the Initial Term, the term of this Agreement shall be automatically extended for successive terms of one (1) year each (each a "Renewal Term"), unless either party notifies the other party in writing of its desire to terminate this Agreement at least sixty (60) days before the end of the Initial Term or a Renewal Term then in effect. Collectively, the Initial Term and any subsequent Renewal Term(s) (or any portion thereof) shall be referred to herein as the "Employment Term."

2. Employment. Throughout the Employment Term, Employee shall serve as Chief Financial Officer of the Company and shall diligently perform all such services, acts and things as are customarily done and performed by individuals holding such offices of companies in similar businesses and in similar size to the Company, together with such other duties as may reasonably be requested from time to time by the President and Chief Executive Officer ("CEO"). Employee shall periodically and regularly report to the CEO. As of the date hereof, Employee is employed through Sequoia Trusted Advisors, Inc., a professional employer organization ("Sequoia"). The Company acknowledges and agrees that it is responsible for making the payments due the Employee pursuant to the terms of this Agreement whether through Sequoia (or a successor professional employer organization) or directly by the Company if it no longer employs the Employee through Sequoia (or a successor professional employer organization). For the avoidance of doubt, all references to employment by the Company shall apply to any employment through Sequoia (or a successor professional employer organization).

3. Base Salary, Bonuses and Stock Options. During the Employment Term, the Company shall pay to Employee an annual base salary of TWO HUNDRED EIGHTY THOUSAND DOLLARS ($280,000) per year, less required withholdings (such amount, as amended from time to time, the "Base Salary, which shall increase to THREE HUNDRED THOUSAND DOLLARS ($300,000) per year, less required withholdings upon the completion of a Third Party Financing (as defined below). On the date this Agreement is executed, Employee shall receive (i) a fully-vested nonqualified stock option to purchase TWO MILLION (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 over the counter markets (OTC market) and (ii) a TWENTY-FIVE THOUSAND DOLLAR ($25,000) retention bonus.

   Employee shall also receive a FIFTY THOUSAND DOLLARS bonus ($50,000) and a fully-vested nonqualified stock option to purchase TWO MILLION (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 an issuance to a third party of equity or other form of investment or debt on terms satisfactory to the Board of Directors of the Company, which raises at least $15,000,000 (prior to the payment of expenses) for the Company ("Third Party Financing"), if Employee was employed at the time of closing or if Employee was employed within one year prior to the closing. Upon the closing, prior to December 31, 2021, of an issuance to a third party of equity or other form of investment or debt on terms satisfactory to the Board of Directors of the Company, which raises at least $10,000,000 (prior to the payment of expenses) for the Company subsequent to a Third Party Financing, Employee shall receive an additional bonus of FIFTY THOUSAND DOLLARS ($50,000), if Employee was employed at the time of closing or if Employee was employed within one year prior to the closing.

4. Stock Options Grants. Any options described in this Agreement or as later offered to Employee shall be granted pursuant to and treated subject to the terms of that certain ZIVO Bioscience 2019 Omnibus Long-Term Incentive Plan (the "Plan"), or a successor plan thereto.

5. Expenses. The Company shall reimburse Employee for all necessary and reasonable business expenses incurred by him in the performance of his duties under this Agreement, upon presentation of expense accounts and appropriate documentation in accordance with the Company's standard policies, as they may be amended from time to time.

6. Benefits. Employee, at his election, may participate, during the Employment Term, in all retirement plans, savings plans, health or medical plans and any other benefit plans of the Company generally available from time to time to other management employees of the Company and for which Employee qualifies under the terms of the plans.

7. Services. Employee shall perform his duties under this Agreement faithfully, diligently and to the best of his ability. He shall serve subject to the policies and instruction of the CEO to the extent consistent with the terms of this Agreement, and shall devote all of his business time, attention, energies and loyalty to the Company, provided, however, that the expenditure of reasonable amounts of time by Employee for personal, charitable, professional or other business activities, such as an outside director position, shall not be deemed a breach of this Agreement, so long as such activities do not materially interfere with the services required to be rendered by Employee under this Agreement and are not contrary to the interests of the Company. On reasonable notice, Employee shall make himself available to perform his duties under this Agreement at such times and at such places as the Company reasonably deems necessary, proper, convenient or desirable.

8. Termination. Employee or the Company may terminate Employee's employment as follows:

   (a) Death or Disability. Employee's employment under this Agreement shall terminate automatically upon Employee's death or Disability. For purposes of this Agreement, "Disability" means that (i) Employee has been unable, for 180 days or more in any 360-day period, to perform Employee's duties and responsibilities under this Agreement even with reasonable accommodation, as a result of physical or mental illness or injury, and (ii) a physician selected by the Company or its insurers, and acceptable to Employee or Employee's legal representative, has determined that Employee is so disabled. As part of this decision-making on disability, Employee and the Company agree to engage in discussion about possible reasonable accommodations, as such concept is contemplated by the Americans with Disabilities Act, as amended (the "ADA"). A termination of Employee's employment by the Company for "disability" shall be communicated to Employee by written notice, and shall be effective on the thirtieth (30^{th}) day after receipt of such notice by Employee (such day, the "Disability Confirmation Date"), unless Employee returns to full-time performance of Employee's duties before the Disability Confirmation Date.

   (b) By the Company "for Cause." During the Employment Term, the Company may immediately terminate Employee's employment for "Cause". For purposes of this Agreement, "Cause" shall mean, in each case as determined by the Board:

      (i) Employee's conviction of a felony or other crime involving moral turpitude (but not automobile related matters);

      (ii) Employee's commission of and conviction for any act or omission involving dishonesty, fraud, embezzlement, theft, substance abuse or sexual misconduct with respect to the Company, any subsidiary of the Company or any of their respective employees, vendors, suppliers or customers, the specific nature of which shall be set forth in a written notice by the Company to Employee;

      (iii) Employee's substantial and continued neglect of or failure to perform his duties, or failure to follow a "reasonable directive of the CEO" which, after written notice from the CEO of such neglect or failure, has not been cured within thirty (30) days after he receives such notice. For purposes of this Agreement, "reasonable directive of the CEO," shall mean a directive that is applied equitably among the management employees of the Company and that is not inconsistent with the terms of this Agreement; provided, however, that the foregoing shall not include any directive of the CEO which (x) upon advice of counsel, could reasonably be a violation of applicable law, the rules and regulations governing the listing and/or trading of the Company's securities, or any material agreement to which the Company is a party or its assets are subject, or (y) is contrary to the customary operations of similarly situated businesses in the industries and markets in which the Company is engaged or expected to be engaged within one (1) year and;

      (iv) Employee's gross negligence or willful misconduct in the performance of his duties which results in material harm to the Company; or

      (v) Employee's conviction of a misappropriation of funds or assets of the Company or any subsidiary of the Company.

An act or failure to act will be considered "gross or willful" for this purpose only if done, or omitted to be done, by Employee in bad faith and without reasonable belief that it was in, or not opposed to, the best interests of the Company. Any act, or failure to act, based upon authority given pursuant to a directive by the CEO or based upon the advice of counsel for the Company will be conclusively presumed to be done, or omitted to be done, by Employee in good faith and in the best interests of the Company. Notwithstanding the foregoing, Employee may not be terminated for Cause pursuant to clauses (iii) or (iv) above unless and until there has been delivered to Employee a copy of the directive by the CEO (after reasonable notice to Employee and an opportunity for Employee to be heard by the CEO), finding that in the good faith opinion of the CEO Employee was guilty of the conduct set forth above in clauses (iii) or (iv) of this definition and specifying the particulars thereof in detail.

(c) By the Company without Cause. During the Employment Term, the Company may terminate Employee's employment upon thirty (30) days' advance written notice to Employee.

(d) By Employee. During the Employment Term, Employee may voluntarily terminate Employee's employment for any reason or no reason whatsoever upon thirty (30) days' advance written notice to the Company.

(e) By Employee for Good Reason – During the Employment Term, Employee may terminate his employment for "Good Reason." For purposes of this Agreement, "Good Reason" shall mean, without Employee's prior written consent, any of the following:

(i) a material diminution in Employee's authorities, duties, titles or responsibilities;

(ii) the location of the facility at which Employee is required to perform his duties is more than fifty (50) miles from the then current Company headquarters;

(iii) a material reduction of Employee's then Base Salary; or

(iv) the Company's failure to pay or make available any material payment or benefit due Employee under this Agreement or any other material breach by the Company of this Agreement.

(v) If Employee gives Company one year written notice of Employee's intention to terminate his employment, provided, that the Company may terminate Employee's employment at any time within such one-year period

However, the foregoing events or conditions will constitute Good Reason only if Employee provides the Company with written objection to the event or condition within ninety (90) days following the occurrence thereof, the Company does not reverse or otherwise cure the event or condition within thirty (30) days of receiving that written objection and Employee resigns his employment within thirty (30) days following the expiration of that cure period."

(f) Based on Non-Renewal. Employee's employment will automatically terminate as of the end of the Initial Term or Renewal Term then in effect, as applicable, if either party notifies the other party in writing of its desire not to renew this Agreement at the end of such Initial Term or then-current Renewal Term at least sixty (60) days before the end of such Initial Term or Renewal Term.

9. Payments Following Termination.

(a) Accrued Obligations. Upon the termination of Employee's employment for any reason outlined in Section 8, above, Employee shall be entitled to and the Company shall provide the following payments and benefits (collectively, the "Accrued Obligations"):

(i) Any accrued and unpaid Base Salary covering the period of employment prior to the effective date of termination, payable on the next regularly scheduled payroll date after the effective date of Employee's termination;

(ii) Reimbursement for any expenses properly incurred by Employee in accordance with Section 5 through the effective date of Employee's termination, payable within thirty (30) days after the effective date of Employee's termination, provided Employee has submitted all requisite expense reimbursement documentation; and

(iii) Employee benefits, if any, to which Employee may be entitled under the Company's employee benefit plans as of the effective date of Employee's termination; provided, that, in no event shall Employee be entitled to any payments in the nature of severance or termination payments except as expressly provided in this Section 9.

(b) Severance Benefits Following a Termination of Employee's Employment under Section 8(a), Section 8(c) Section 8(e) or Section 8(f). Upon the termination of Employee's employment under Section 8(a), Section 8(c), Section 8(e) or Section 8(f) then subject to Section 9(f), in addition to the Accrued Obligations, Employee shall be entitled to:

(i) severance pay equal to (A) continuation of his Base Salary for one (1) year, provided that Employee has complied with Section 9(f) by such date, the first installment of this salary continuation shall be payable to Employee on the sixtieth (60th) day after the effective date of the termination and shall include a catch-up payment covering amounts that would otherwise have been paid during such sixty (60) day period, thereafter, the salary continuation payments shall be payable in regular installments in accordance with the Company's general payroll practices, or (B) a lump-sum payment of $250,000 in lieu of the salary continuation payments described in clause (A), if the Company has received at least $15,000,000 of equity or other form of investment or debt on terms satisfactory to the Board of Directors of the Company raised from a third party prior to the date of termination; plus

(ii) a fully-vested, nonqualified stock option to purchase ONE MILLION (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; plus

(iii) continued participation in Employee's health and medical plans, which Employee was eligible to participate in or receive on the day prior to the date of termination, beginning on the date of termination and continuing for a period of one (1) year, but only to the extent Employee continues to qualify for participation therein and takes all actions required in connection with participation. In the event Employee does not qualify for participation therein Company will pay Employee a sufficient sum (after tax) to cover any COBRA or similar payments, provided that Employee has complied with Section 9 (f).

(c) Severance Benefits Following a Change of Control. If Employee's employment with the Company ceases within the twenty-four (24) month period following the date of a Change of Control (defined below) due to Section 8(a), Section 8(c), Section 8(e) or Section 8 (f)then, subject to Section 9(f), Employee will be entitled to:

(i) The Accrued Obligations;

(ii) A lump sum cash payment equal to 300% of the Base Salary as in effect on such date. This amount will be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 9 (f) by such date.

(iii) A lump sum cash payment in the amount of $20,000, to be used for the purchase of medical coverage or for any other purpose, to be paid on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 9(f) by such date.

(iv) Severance pay equal to twenty-four (24) months of Employee's Base Salary. For purposes of this subparagraph, Base Salary shall be determined based on Employee's current Base Salary as of the date of termination. Provided that Employee has complied with Section 9(f) by such date, the first installment of this salary continuation shall be payable to Employee on the sixtieth (60th) day after the effective date of the termination and shall include a catch-up payment covering amounts that would otherwise have been paid during such sixty (60) day period. Thereafter, the salary continuation payments shall be payable in regular installments in accordance with the Company's general payroll practices.

(v) All outstanding and contingent nonqualified options owned directly or beneficially by Employee shall be converted immediately into vested options, with terms as specified in the Award Agreement, but in no case with an expiration date longer than the original option expiration date. This conversion shall take place on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 9(f) by such date.

(d) Severance Events Preceding a Change of Control. If Employee's employment with the Company ceases during the sixty (60) days immediately preceding the date of a Change of Control (defined below) due to Section 8(a), Section 8(c) Section 8(e) or Section 8(f), then, subject to Section 9(f), Employee will be entitled to:

(i) The Accrued Obligations;

(ii) The Company will make a lump sum cash payment to Employee equal to 300% of the Base Salary as in effect on such date. This amount will be paid in a lump sum, on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 9(f) by such date;

(iii) A lump sum cash payment in the amount of $20,000, to be used for the purchase of medical coverage or for any other purpose, to be paid on the sixtieth (60th) day after the effective date of Employee's employment termination, provided that Employee has complied with Section 9(f) by such date;

(iv) Severance pay equal to twenty-four (24) months of Employee's Base Salary. For purposes of this subparagraph, Base Salary shall be determined based on Employee's current Base Salary as of the date of termination. Provided that Employee has complied with Section 9(f) by such date, the first installment of this salary continuation shall be payable to Employee on the sixtieth (60th) day after the effective date of the termination and shall include a catch-up payment covering amounts that would otherwise have been paid during such sixty (60) day period. Thereafter, the salary continuation payments shall be payable in regular installments in accordance with the Company's general payroll practices.

(v) All outstanding and contingent nonqualified options owned directly or beneficially by Employee shall be converted immediately into vested options, with terms as specified in the Award Agreement, but in no case with an expiration date longer than the original option expiration date. This conversion shall take place on the sixtieth (60th) day after the effective date of the termination, provided that Employee has complied with Section 9(f) by such date.

In an effort to be prepared for a potential Change of Control occurring within such sixty (60)-day period, the Company shall deliver to the Employee the form of Release required hereunder promptly after Employee's employment with the Company ceases so that the Employee can execute and deliver to the Company such Release and allow for the revocation and other time periods to lapse, provided, however, that, in the event a Change of Control does not occur within sixty (60) days after Employee's employment with the Company ceases, any such Release delivered to the Company (x) shall be void and without force or effect as it relates to this Section 9(d), but (y) if applicable, shall be effective as it relates to Section 9(b).

(e) Reduction of Severance Benefits. Notwithstanding the foregoing, if the Company's obligation to make the payments provided for in Sections 9(c)(ii) and 9(c)(iii) or Sections 9 (d)(ii) and 9(d)(iii) arises due to Employee's death or termination due to Disability, the cash payments described in such sections, as applicable, will be reduced by the amount of benefits paid or payable to Employee (or Employee's representative(s), heirs, estate or beneficiaries) pursuant to the life insurance or disability plans, policies or arrangements of the Company by virtue of Employee's death or termination due to Disability (including, for this purpose, only that portion of such life insurance or disability benefits funded solely by the Company or by premium payments made by the Company and not including the portion of such benefits paid for by Employee); provided that such offset does not violate Code Section 409A.

(f) Conditions to Severance Benefits; Payment Timing. Notwithstanding any provision of this Agreement, the payments and benefits described in this Section 10 (other than any Accrued Obligations) shall be provided if and only if: (i) Employee has been and remains in strict compliance with his post-employment obligations to the Company, including, without limitation, those outlined in Section 10 through Section 13 of this Agreement, provided that noncompliance shall be determined only pursuant to a final, non-appealable decision by a court of competent jurisdiction; and (ii) Employee has executed and delivered to the Company a general release of claims satisfactory to the Company in the form attached hereto as Exhibit A (the "Release") and such Release becomes effective and irrevocable in a manner consistent with applicable law within sixty (60) days after the date Employee's employment is terminated. Notwithstanding any provision of this Agreement to the contrary, in no event shall the timing of Employee's execution of the Release, directly or indirectly, result in Employee designating the calendar year of payment, and if a payment that is subject to execution of the Release could be made in more than one taxable year, payment shall be made in the later taxable year.

(g) No Other/Duplication of Benefits. Except as specifically provided herein and subject to Code Section 409A, Employee shall not accrue or be entitled to any salary, compensation (Including under any severance plan, fund, agreement, or other arrangement maintained by the Company), or benefits after the date Employee's employment is terminated, except as provided in this Section 9 or expressly required by applicable law. Further, and for the avoidance of doubt, the payments and benefits described in Section 9(c) and Section 9(d) are in lieu of (and not in addition to) each other and of the benefits set forth in Section 9(b).

(h) Change in Control Definition. As used in this Agreement, "Change of Control" means the happening of an event, which shall be deemed to have occurred upon the earliest to occur of the following events:

(i) The dissolution or liquidation of the Company;

(ii) The sale or other disposition of all or substantially all of the assets of the Company;

(iii) The merger or consolidation of the Company with or into another corporation or other entity, other than, in either case, a merger or consolidation of the Company in which holders of shares of the Company's voting securities immediately prior to the merger or consolidation will have more than 50% of the ownership of voting capital stock of the surviving corporation immediately after the merger or consolidation (on a fully diluted basis), which voting securities are to be held in the same proportion (on a fully diluted basis) as such holders ownership of voting capital stock of the Company immediately before the merger or consolidation;

(iv) The date any entity, Person or group (within the meaning of Section 13(d)(3) or Section 14(d)(2) of the Exchange Act), other than (i) the Company, or (ii) any of its Subsidiaries, or (iii) any employee benefit plan (or related trust) sponsored or maintained by the Company or any of its Subsidiaries, or (iv) any Affiliate (as such term is defined in Rule 405 promulgated under the Securities Act) of any of the foregoing, shall have acquired beneficial ownership of, or shall have acquired voting control over, 50% or more of the outstanding shares of the Company's voting capital stock (on a fully diluted basis), unless the transaction pursuant to which such Person, entity or group acquired such beneficial ownership or control resulted from the original issuance by the Company of shares of its voting capital stock and was approved by at least a majority of Directors who were either members of the Board on the date that this Agreement was originally adopted by the Board or members of the Board for at least twelve (12) months before the date of such approval; or

(v) The first day after the date of this Agreement when Directors are elected such that there is a change in the composition of the Board such that a majority of Directors have been members of the Board for less than twelve (12) months, unless the nomination for election of each new Director who was not a Director at the beginning of such twelve (12) month period was approved by a vote of at least sixty percent (60%) of the Directors then still in office who were Directors at the beginning of such period.

Notwithstanding the foregoing, the Board may provide for a different definition of a Change of Control in an Award Agreement if such Award is subject to the requirements of Code Section 409A and the Award will become payable on a Change of Control. Notwithstanding the foregoing, to the extent "Change of Control" is a payment trigger and not merely a vesting trigger for any payment provided hereunder that is not exempt from Code Section 409A, "Change of Control" means a change in the ownership or effective control of the Company, or a change in the ownership of a substantial portion of the assets of the Company, as described in Treas, Reg. Section 1.409A-3(i)(5), but replacing the term "Company" for the term "corporation" in such regulation.

10. Cooperation**.** During the Employment Term and for the one (1) year period after Employee's employment with the Company ends for any reason other than death, Employee agrees to give his assistance and cooperation, upon reasonable advance notice, in any matter relating to his position with the Company, or his knowledge as a result thereof as the Company may reasonably request, including his attendance and truthful testimony where reasonably deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigation or other proceeding relating to matters in which Employee was involved or has knowledge by virtue of his employment with the Company. The Company shall reasonably endeavor to schedule such cooperation at times not conflicting with the reasonable requirements of any employer or third party with whom Employee has a business relationship permitted hereunder that provides remuneration to Employee and shall promptly reimburse Employee for all reasonable costs and expenses incurred in connection therewith and shall promptly pay Employee $220 per hour for his time expended in connection therewith, in accordance with Company policy and upon the submission of the appropriate documentation to the Company.

11. Fair Competition. The Company and Employee acknowledge and agree that for Employee to compete with the Company during the Employment Term and for a limited time after the end of the Employment Term would be contrary to the purposes for which the parties entered into this Agreement. In order to induce the Company to enter into this Agreement, Employee covenants, warrants and agrees, for the benefit of the Company, and its respective current and future Subsidiaries, successors and assigns (collectively, the "Protected Parties" and each a "Protected Party"), that, during the Covenant Period (as defined below), Employee, for himself or for any other Person, either as a principal, agent, employee, contractor, director, officer or in any other capacity, shall not, without first obtaining the express written consent of the Company (except in his capacity as an employee of the Company), either directly or indirectly:

(a) Own, manage, operate, join, control, finance or participate in the ownership, management, operation, control or financing of, or be connected as an officer, director, employee, partner, principal, agent, representative, stockholder, consultant, investor or otherwise with, or use or permit his name to be used in connection with, any Person which directly or indirectly engages in the development, marketing or sale of products or compounds that are competitive with: (i) those products being marketed by the Protected Parties with respect to the Business at the time of Employee's termination; (ii) those products, product candidates or compounds in clinical development or a clinical research program by the Company at the time of Employee's termination; or (iii) those products, product candidates or compounds that Employee was aware were under pre-clinical development with respect to the Business by Protected Parties and expected to be in clinical development or in a clinical research program within six (6) months of Employee's termination (collectively, the "Company's Business");

(b) (x) Solicit, entice or induce any customer to (i) become a customer of any other Person with respect to the Company's Business; (ii) refrain from or cease doing business with the Protected Parties with respect to the Company's Business; or (iii) reduce its business with the Protected Parties with respect to the Company's Business, and (y) Employee will not approach any such Person for such purpose described in clauses (i), (ii) or (iii) or authorize or knowingly approve, encourage or assist the taking of such actions by any other Person;

(c) Solicit, recruit or hire any part-time or full-time employee, representative or consultant of any Protected Party to (1) leave the employment of or terminate his, her or its contractual relationship with such Protected Party; or (2) enter into an employment or a contractual relationship with any third party, including Employee or any Person in which Employee has any interest whatsoever, and Employee shall not engage in any activity that would cause any employee, representative or consultant to violate any agreement with any Protected Party, provided that the foregoing covenant shall not apply to any Person after twelve (12) months have elapsed after the date on which such person's employment by a Protected Party has terminated, and provided further that nothing contained herein shall prevent Employee from employing or engaging any Person who, without any encouragement by Employee or his representatives, (x) responds to a general media advertisement or non-directed search inquiry (including the use of employment agencies provided no direction was given to target a Protected Party's employees or third party contractors), or (x) makes an unsolicited contact for employment or engagement as a third party contractor.

(d) Notwithstanding the foregoing, during the Covenant Period, Employee is free to conduct the affairs of Legacy Results, Inc., a privately held consulting firm wholly owned and controlled by Employee, and to serve on boards of other companies when such opportunities are offered; provided that, in each case, such activities do not otherwise breach or materially interfere with Employee's obligations under this Agreement. The foregoing restrictions in this Section 12 shall also not be construed to prohibit Employee's ownership of less than five percent of any class of securities of any corporation or other entity which is engaged in any of the foregoing businesses with which Employee is restricted hereunder from being affiliated with and has a class of securities registered pursuant to the Securities Exchange Act of 1934, as amended, provided that such ownership represents a passive investment and that neither Employee nor any group of persons including Employee in any way, either directly or indirectly, manages or exercises control of any such corporation, guarantees any of its financial obligations, otherwise takes any part in its business, other than exercising Employee's rights as a stockholder, or seeks to do any of the foregoing.

(e) For purposes of this Agreement, the following terms shall have mean:

(i) "Affiliate" means, as to any specified Person, any other Person controlling or controlled by or under common control with such specified Person;

(ii) "Business" means the business of selling or licensing the specific intellectual property, products and processes developed and owned by the Company during the Employment Term in any market or application specifically as they relate to cholesterol regulation and non-steroidal anti-inflammatory agents unique to the Company and protected by patents or patents in application held by the Company.

(iii) "Covenant Period" means during the Employment Term and continuing for a period of one (1) year after the date that Employee's employment with the Company ends for any reason, including, but not limited to, as the result of any of the reasons set forth in Section 9, above; provided, however, that in the event there is a Change of Control and related termination that triggers Employee's eligibility for the benefits outlined in Section 10(c) or 10(d), above, "Covenant Period" shall mean during the Employment Term and continuing for a period of three (3) years after the date that Employee's employment with the Company ends. The Parties acknowledge and agree that this extended period is reasonable and is a specifically negotiated for term being provided in exchange for the significant consideration to be provided to Employee following a Change in Control as provided in Section 10(c) or 10(d). The parties further agree that should Employee be asked to provide continuing consulting services to the Company following a Change of Control and related termination, such provision of services to the Company (or its successor) shall not violate the provisions of this Section 12.

(iv) "Person" means an individual, corporation, partnership, limited liability company, association, trust, joint venture, unincorporated organization, other entity or group, or a governmental authority.

(v) "Subsidiary" means any entity in which the Company owns more than fifty percent (50%) of the voting securities.

12. Intellectual Property Rights. Employee recognizes that he may, individually or jointly with others, discover, conceive, make, perfect or develop inventions, discoveries, new contributions, concepts, ideas, developments, processes, formulas, methods, compositions, techniques, articles, machines and improvements, and all original works of authorship and all related know-how, whether or not patentable, copyrightable or protectable as trade secrets for and on behalf of the Company pursuant to this Agreement ("Inventions"). Employee agrees that all such Inventions are the sole and exclusive property of the Company. **EMPLOYEE AGREES THAT ANY PARTICIPATION BY HIM IN THE DESIGN, DISCOVERY, CONCEPTION, PRODUCTION, PERFECTION, DEVELOPMENT OR IMPROVEMENT OF AN INVENTION IS WORK MADE FOR HIRE, AS DEFINED IN TITLE 17, UNITED STATES CODE, FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE COMPANY AND EMPLOYEE HEREBY ASSIGNS TO THE COMPANY ALL OF HIS RIGHTS IN AND TO SUCH INVENTIONS.** Employee shall maintain adequate and current written records of all Inventions, which shall remain the property of the Company and be available to the Company at all times. At the Company's request, Employee shall promptly sign and deliver all documents necessary to vest in the Company all right, title and interest in and to any Inventions. If the Company is unable, after reasonable effort, to secure Employee's signature on any document needed to vest in the Company all right, title and interest in and to any Inventions, whether because of Employee's physical or mental incapacity or for any other reason whatsoever, Employee hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Employee's agent and attorney-in-fact, to act for and in Employee's behalf and stead to execute and file any such document and to do all other lawfully permitted acts to further the prosecution and enforcement of patents, copyrights or similar protections with the same legal force and effect as if executed by Employee.

13. Confidentiality.

(a) Employee acknowledges and agrees that he shall treat all Confidential Information (as defined below) in a confidential manner, not use any Confidential Information for his own or a third party's benefit and not communicate or disclose, orally or in writing, any Confidential Information to any person, either directly or indirectly, under any circumstances without the prior written consent of the Company. Employee further agrees that he shall not utilize or make available any Confidential Information, either directly or indirectly, in connection with his solicitation of employment or acceptance of employment with any third party. Employee further agrees that he will promptly return (or destroy if it cannot be returned) to Company all written or other tangible evidence of any Confidential Information and any memoranda with respect thereto which are in his possession or under his control upon Company's request for the return of such items.

(b) For the purposes of this Agreement, the term "Confidential Information" shall include all proprietary information related to the Business, including, but not limited to, processes, ideas, techniques, Inventions, methods, products, services, research, purchasing, marketing, selling, customers, suppliers or trade secrets. All information which Employee has a reasonable basis to believe to be Confidential Information, or which Employee has a reasonable basis to believe the Company or any of its Affiliates treat as Confidential Information, shall be deemed to be Confidential Information. Notwithstanding the foregoing, information shall not be deemed to be Confidential Information if it is generally known and publicly available, without the fault of Employee and without the violation by any person of a duty of confidentiality or any other duty owed to any Protected Party.

(c) Nothing in this Agreement shall be construed to prevent disclosure of Confidential Information or the making of statements, as may be required by applicable law or regulation, or pursuant to the valid order of a court of competent jurisdiction or an authorized government agency, provided that such disclosure or statements will be limited to the extent and only in the instances Employee is so compelled and, subject to the requirements of applicable law, Employee agrees to give the Company prior written notice of his intent to so disclose such Confidential Information or make any such statements and to cooperate with the Company (at the Company's sole cost and expense) in seeking confidentiality protections or resisting such compulsion as requested by the Company. Employee further understands and agrees that this Agreement does not prohibit Employee from reporting possible violations of federal law or regulation to any governmental agency or entity or making other disclosures that are protected under the whistleblower provisions of federal law or regulation and that Employee does not need the Company's prior authorization to make any such reports or disclosures and is not required to notify the Company that he has made such reports or disclosures.

(d) Further, notwithstanding any other provision of this Agreement: (i) Employee is advised that an individual will not be held criminally or civilly liable under any federal or state trade secret law for any disclosure of a trade secret that is made: (1) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney and solely for the purpose of reporting or investigating a suspected violation of law; or (2) in a complaint or other document that is filed under seal in a lawsuit or other proceeding; and (ii) if a person files a lawsuit for retaliation by the Company for reporting a suspected violation of law, that person may disclose the Company's trade secrets to his or her attorney and use the trade secret information in the court proceeding if that person (1) files any document containing the trade secret under seal; and (2) does not disclose the trade secret, except pursuant to court order.

14. Enforceability; Remedies.

(a) Employee acknowledges and agrees that the covenants set forth in Section 12 through Section 14 above (collectively, the "Restrictive Covenants" and each a "Restrictive Covenant") are reasonable and valid in geographical and temporal scope and in all other respects and are necessary to protect the legitimate interests of the Company and its Affiliates, that the Company would not have entered into this Agreement in the absence of such restrictions, and that any violation of Restrictive Covenant could result in irreparable injury to the Company. Employee further represents and acknowledges that (i) he has been advised by the Company to consult his own legal counsel in respect of this Agreement, and (ii) that he has had full opportunity, prior to execution of this Agreement, to review thoroughly this Agreement with his counsel.

(b) The parties intend that the Restrictive Covenants shall be deemed to be a series of separate covenants, one for each and every political subdivision of each country, state, province and county, as applicable in the world. If any court determines that any Restrictive Covenant, or any portion thereof, is invalid or unenforceable, the remainder of the Restrictive Covenants 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 Restrictive Covenant, 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 enforce such covenant or portion in such reduced form. The parties intend to and hereby confer jurisdiction to enforce the Restrictive Covenants upon the courts of any jurisdiction in which Employee is alleged to have committed an act in violation of any of the covenants contained here. If the courts of any one or more of such jurisdictions hold the Restrictive Covenants, or any portion thereof, unenforceable, it is the intention of the parties 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 Restrictive Covenants as to breaches of such Restrictive Covenants in such other respective jurisdictions.

(c) In the event of a breach or attempted breach of any of the Restrictive Covenants, in addition to any and all legal and equitable remedies immediately available, such Restrictive Covenants may be enforced by a temporary and/or permanent injunction to secure the specific performance of such Restrictive Covenants, and to prevent a breach or contemplated breach of such Restrictive Covenants, without the need to post any bond or other security of any kind. Employee acknowledges and agrees that the remedy at law for a breach or threatened breach of any of the Restrictive Covenants would be inadequate. Employee acknowledges and agrees that the remedies provided for in this Agreement are cumulative and are intended to be and are in addition to any other remedies available to the Company, either at law or in equity. In addition, Employee agrees that, in the event of a breach of the Restrictive Covenants by Employee as determined pursuant to a final, non-appealable decision by a court of competent jurisdiction, he shall be liable, and shall reimburse the Company, for all fees, costs and expenses (including reasonable attorneys' fees and other professional fees) arising out of or in any way related to the enforcement of such Restrictive Covenants.

The Company agrees that in the event of a dispute or breach in which Employee prevails pursuant to a final, non-appealable decision by a court of competent jurisdiction, the Company shall be liable, and shall reimburse Employee, for all fees, costs and expenses (including reasonable attorneys' fees and other professional fees) arising out of or in any way related to the enforcement of the Restrictive Covenants.

15. Notices. All notices, requests, consents and other communications, required or permitted to be given under this Agreement shall be personally delivered in writing or shall have been deemed duly given when received after it is posted in the United States mail, postage prepaid, registered or certified, return receipt requested addressed as set forth below. In addition, a party may deliver a notice via another reasonable means that results in the recipient party receiving actual notice, as conclusively demonstrated by the party giving such notice.

If to the Company:

Andrew A. Dahl, President and Chief Executive Officer
ZIVO Bioscience, Inc.
2804 Orchard Lake Road, Suite 202
Keego Harbor, MI 48320
Cell: 586 665 9000
Fax: 248 869 6006
adahl@zivobioscience.com

With a required copy to:

Honigman LLP
2290 First National Building
660 Woodward Avenue
Detroit, MI 48226
Attn: Donald J. Kunz
dkunz@honigman.com

If to Employee:

Philip M. Rice II
13437 Redmonds Hill Ct.
Chelsea, MI 48118
Cell: 586 665 9000 Fax: 248 869 6006
price@legacy-results.com

With a required copy to:

Ahern Kill
355 South Old Woodward, Ste 210
Birmingham, MI 48009
Attn: Joseph Ahern
jahern@ahernkill.com

16. Taxes.

(a) Any payments provided for in this Agreement shall be paid net of any applicable income tax withholding required under federal, state or local law.

(b) This Agreement shall be interpreted to avoid any penalty sanctions under Section 409A of the Code. If any payment or benefit cannot be provided or made at the time specified herein without incurring sanctions under Section 409A, then such benefit or payment shall be provided in full at the earliest time thereafter when such sanctions will not be imposed. All payments to be made upon a termination of employment under this Agreement will be made upon a "separation from service" under Section 409A of the Code. For purposes of Section 409A of the Code, each payment made under this Agreement shall be treated as a separate payment. In no event may Employee, directly or indirectly, designate the calendar year of payment. To the maximum extent permitted under Section 409A of the Code and its corresponding regulations, the cash severance benefits payable under this Agreement are intended to meet the requirements of the short-term deferral exemption under Section 409A of the Code and the "separation pay exception" under Treas. Reg. §1.409A-1(b)(9)(iii). However, if such severance benefits do not qualify for such exemptions at the time of Employee's termination of employment and therefore are deemed as deferred compensation subject to the requirements of Section 409A of the Code, then if Employee is a "specified employee" under Section 409A of the Code on the date of Employee's termination of employment, notwithstanding any other provision of this Agreement, payment of severance under this Agreement shall be delayed for a period of six (6) months from the date of Employee's termination of employment if required by Section 409A of the Code. The accumulated postponed amount shall be paid in a lump sum payment within ten (10) days after the end of the six (6) month period. If Employee dies during the postponement period prior to payment of the postponed amount, the amounts withheld on account of Section 409A of the Code shall be paid to Employee's estate within sixty (60) days after the date of Employee's death. All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A of the Code, including, where applicable, the requirement that (i) any reimbursement shall be for expenses incurred during Employee's lifetime (or during a shorter period of time specified in this Agreement), (ii) the amount of expenses eligible for reimbursement, or in kind benefits provided, during a calendar year may not affect the expenses eligible for reimbursement, or in kind benefits to be provided, in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred and (iv) the right to reimbursement or in kind benefits is not subject to liquidation or exchange for another benefit.

(c) The payments and benefits provided under Section 9 shall be made without regard to whether such payments and benefits, either alone or in conjunction with any other payments or benefits made available to Employee by the Company and its affiliates, will result in Employee being subject to an excise tax under Section 4999 of the Code (the "Excise Tax") or whether the deductibility of such payments and benefits would be limited or precluded by Section 280G of the Code; *provided, however*, that if the Total After-Tax Payments (as defined below) would be increased by limitation or elimination of payments or benefits provided under Section 9, then the amounts and benefits payable under Section 9 will be reduced to the minimum extent necessary to maximize the Total After-Tax Payments. For purposes of this Section 16, "Total After-Tax Payments" means the total of all "parachute payments" (as that term is defined in Section 280G(b)(2) of the Code) made to or for the benefit of Employee (whether made under this Agreement or otherwise), after reduction for all applicable taxes (including, without limitation, the Excise Tax). If a reduction to the payments or benefits provided under Section 9 is required pursuant to this Section 16, such reduction shall be determined in the following order and priority: first, there shall be reduced or eliminated any such right, payment or benefit that is excluded from the coverage of Code Section 409A, and then there shall be reduced or eliminated any such right, payment or benefit that is subject to Code Section 409A (with the reduction in rights, payments or benefits subject to Code Section 409A occurring in the reverse chronological order in which such rights, payments or benefits would otherwise be or become vested, exercisable or settled). For the avoidance of doubt, the parties expressly agree that this Section 17(c) shall prevail over any inconsistent or conflicting terms in Section 13 of the Plan.

(d) All determinations to be made under this Section 16 shall be made by the Company's independent public accountant (the "Accounting Firm") immediately prior to the Change of Control. In the event that the Accounting Firm is serving as accountant or auditor for the individual, entity or group effecting the Change of Control, Employee may appoint another nationally recognized public accounting firm to make the determinations required hereunder (which accounting firm shall then be referred to as the Accounting Firm hereunder). All fees and expenses of the Accounting Firm shall be borne solely by the Company. Any determination by the Accounting Firm shall be binding upon the Company and Employee, except as described in the next paragraph.

(e) As a result of the uncertainty in the application of Section 280G and Section 4999 of the Code at the time of the Change of Control, it is possible that payments and benefits which will not have been made or provided by the Company should have been made ("Underpayment") or payments and benefits are made or provided by the Company which should not have been made ("Overpayment"), consistent with the calculations required to be made hereunder. In the event that there is a final determination by the Internal Revenue Service, or a final determination by a court of competent jurisdiction, that an Overpayment has been made, any such Overpayment shall repaid to the Company by Employee within thirty (30) days of such determination, with interest at the applicable Federal rate provided for in Section 7872(f)(2). In the event that there is a final determination by the Internal Revenue Service, or a final determination by a court of competent jurisdiction, any such Underpayment shall be promptly paid by the Company to or for the benefit of Employee together with interest at the applicable Federal rate provided for in Section 7872(f)(2) of the Code, within thirty (30) days of such determination.

(f) Employee shall take such action (other than waiving Employee's right to any payments or benefits) as the Company reasonably requests under the circumstances to mitigate or challenge any tax contemplated by this Section 16. If the Company reasonably requests that Employee take action to mitigate or challenge, or to mitigate and challenge, any such tax or assessment and Employee complies with such request, the Company shall provide Employee with such information and such expert advice and assistance from the Company's accountants, lawyers and other advisors as Employee may reasonably request and shall pay for all expenses incurred in effecting such compliance and any related fines, penalties, interest and other assessments.

17. Miscellaneous.

(a) The failure of any party to enforce any provision or protections of this Agreement shall not in any way be construed as a waiver of any such provision or provisions as to any future violations thereof, nor prevent that party thereafter from enforcing each and every other provision of this Agreement. The rights granted the parties herein are cumulative and the waiver of any single remedy shall not constitute a waiver of such party's right to assert all other legal remedies available to it under the circumstances.

(b) This Agreement has been executed in, and shall be construed and enforced in accordance with the laws of, the State of Michigan.

(c) Any legal proceeding arising out of or relating to this Agreement will be instituted in the United States District Court for the Eastern District of Michigan, or if that court does not have or will not accept jurisdiction, in any court of general jurisdiction in Oakland County, Michigan, and Employee and the Company hereby consent to the personal and exclusive jurisdiction of such court(s) and hereby waive any objection(s) that they may have to personal jurisdiction, the laying of venue of any such proceeding and any claim or defense of inconvenient forum.

(d) The provisions of this Agreement are severable and if any one or more provisions may be determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions and any partially unenforceable provision to the extent enforceable in any jurisdiction nevertheless shall be binding and enforceable.

(e) This Agreement, inclusive of the above recitals, sets forth the entire understanding and agreement of Employee and the Company with respect to its subject matter and supersedes all prior understandings and agreements, whether written or oral, in respect thereof. For the avoidance of doubt, the parties acknowledge and agree that this Agreement replaces and supersedes that certain Amended and Restated Employment Agreement between the Company and Employee and that certain Amended and Restated Change in Control Agreement. No modification, termination or attempted waiver of this Agreement shall be valid unless in writing and signed by the party against whom the same is sought to be enforced.

(f) The rights and obligations of Company under this Agreement shall inure to the benefit of, and shall be binding on, Company and its successors and assigns. This Agreement is personal to Employee and he may not assign his obligations under this Agreement in any manner whatsoever and any purported assignment shall be void. The Company, however, may assign this Agreement in connection with a sale of all or substantially all of its equity interests or assets.

(g) The parties acknowledge that each of them has equally participated in the final wording of this Agreement. Accordingly, the parties agree that this Agreement shall be construed equally against each party and shall not be more harshly construed against a party by reason of the fact that a particular party's counsel may have prepared this Agreement.

(h) The headings and captions used in this Agreement are for convenience of reference only and shall not be considered in interpreting this Agreement.

(i) This Agreement may be executed, including execution by electronic signature, in one or more counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same agreement.

(j) Employee shall not be required to mitigate damages or the amount of any payments provided for under this Agreement by seeking other employment or otherwise.

(k) Employee agrees that Employee will be subject to any compensation clawback or recoupment policies that may be applicable to Employee as an executive of the Company, as in effect from time to time and as approved by the Board or a duly authorized committee thereof, whether or not approved before or after the effective date of this Agreement.

(l) The parties' obligations as set forth in Sections 4 and 5 and in Sections 9 through this Section 17 of this Agreement will survive and not be affected by (i) the termination or expiration of this Agreement, (ii) the termination of Employee's employment or (iii) the execution of the Release.

Sincerely,

ZIVO BIOSCIENCE, INC.
(the "COMPANY")

By: */s/ Andrew A. Dahl*
Andrew A. Dahl, CEO

ACCEPTED AND AGREED TO:
EMPLOYEE:

By: */s/ Philip M. Rice II*
Philip M. Rice II

EXHIBIT A
Form of Release
EMPLOYMENT AGREEMENT RELEASE

THIS RELEASE AGREEMENT (the "Release") is made as of the ____ day of _____, 20__, by and between ZIVO Bioscience Inc. (the "Company"), and Philip M. Rice II (the "Employee") (in the aggregate, the "Parties").

WHEREAS, the Company and Employee have entered into an Amended and Restated Employment Agreement dated as of March 4, 2020 (the "Employment Agreement"), pursuant to which Employee is entitled to receive certain additional compensation upon Employee's termination of employment with the Company Without Cause (as defined in the Employment Agreement); and

WHEREAS, Employee's receipt of the additional compensation under the Employment Agreement is conditioned upon the execution of this Release; and

WHEREAS, Employee's employment with the Company has been/shall be terminated effective _____ __, 20__ [without Cause] [due to Employee's death] [due to Employee's Disability];

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, it is agreed between the Parties as follows:

1. **Severance Benefits**. In consideration for the promises set forth in this Release, and provided this release becomes effective and irrevocable, the Company shall pay Employee the additional compensation set forth in Section 9(b), 9(c), or 9(d) of the Employment Agreement, as applicable, of the Employment Agreement, in accordance with the terms of such applicable section.

2. **Release.**

(a) In exchange for the good and valuable consideration set forth herein, Employee (or, in the event of Employee's death, Employee's legally authorized representative) agrees for himself, his heirs, administrators, representatives, executors, successors and assigns ("Releasors"), to irrevocably and unconditionally release, waive and forever discharge any and all manner of action, causes of action, claims, rights, promises, charges, suits, damages, debts, lawsuits, liabilities, rights, due controversies, charges, complaints, remedies, losses, demands, obligations, costs, expenses, fees (including, without limitation attorneys' fees), or any and all other liabilities or claims of whatsoever nature, whether arising in contract, tort, or any other theory of action, whether arising in law or in equity, whether known or unknown, choate or inchoate, matured or unmatured, contingent or fixed, liquidated or unliquidated, accrued or unaccrued, asserted or unasserted, including, but not limited to, any claim and/or claim of damages or other relief for tort, breach of contract, personal injury, negligence, age discrimination under The Age Discrimination In Employment Act of 1967 (as amended), employment discrimination prohibited by other federal, state or local laws including sex, race, national origin, marital status, age, handicap, height, weight, or religious discrimination, and any other claims of unlawful employment practices or any other unlawful criterion or circumstance which Employee and Releasors had, now have, or may have in the future against each or any of the Company, its parent, divisions, affiliates and related companies or entities, regardless of its or their form of business organization (the "Company Entities"), any predecessors, successors, joint ventures, and parents of any Company Entity, and any and all of their respective past or present directors, officers, shareholders, partners, employees, consultants, independent contractors, trustees, administrators, insurers, agents, attorneys, representative and fiduciaries, successors and assigns including without limitation all persons acting by, through, under or in concert with any of them (all collectively, the "Released Parties") arising out of or relating to her employment relationship with the Company, its predecessors, successors or affiliates and the termination thereof. Employee understands that he does not waive rights or claims that may arise after the date of this Release.

(b) Notwithstanding anything to the contrary in this Release, Employee is not waiving any rights Employee may have to: (i) claims for earned and Base Salary and unreimbursed expenses; (i) his own vested accrued employee benefits under the Company's health, welfare, or retirement benefit plans; (iii) benefits and/or the right to seek benefits under applicable workers' compensation and/or unemployment compensation statutes; (iv) pursue claims which by law cannot be waived by signing this Release; and (v) enforce the terms and provisions of the Employment Agreement with respect to payments due to Employee upon the execution and delivery of this Release and with respect to future payments due to Employee pursuant to the terms of the Employment Agreement. In addition, nothing in this Release prohibits Employee from filing a charge with or participating, testifying, or assisting in any investigation, hearing, whistleblower proceeding or other proceeding before any federal, state, or local government agency nor does this Release affect Employee's rights and abilities to contact, communicate with, report matters to, or otherwise participate in any whistleblower program administered by any such agencies. However, to the maximum extent permitted by law, Employee agrees that, if such an administrative claim is made, Employee shall not be entitled to recover any individual monetary relief or other individual remedies.

(c) Employee acknowledges that Employee has read this Release carefully and understands all of its terms.

(d) Employee understands and agrees that Employee has been advised to consult with an attorney prior to executing this Release.

(e) Employee understands that Employee is entitled to consider this Release for at least twenty-one (21) days before signing the Release. However, after due deliberation, Employee may elect to sign this Release without availing himself of the opportunity to consider its provisions for at least twenty-one (21) days. Employee hereby acknowledges that any decision to shorten the time for considering this Release prior to signing it is voluntary, and such decision is not induced by or through fraud, misrepresentation, or a threat to withdraw or alter the provisions set forth in this Release in the event Employee elected to consider this Release for at least twenty-one (21) days prior to signing the Release.

(f) Employee understands that Employee may revoke this Release as it relates to any potential claim that could be brought or filed under the Age Discrimination in Employment Act 29 U.S.C. §§ 621-634, within seven (7) days after the date on which he signs this Release, and that this Release as it relates to such a claim does not become effective until the expiration of the seven (7) day period. In the event that Employee wishes to revoke this Release within the seven (7) day period, Employee understands that Employee must provide such revocation in writing to the then Chief Financial Officer of the Company at the address set forth below.

(g) In agreeing to sign this Release, Employee is doing so voluntarily and agrees that Employee has not relied on any oral statements or explanations made by the Company or its representatives.

(h) This Release shall not be construed as an admission of wrongdoing by either Employee or the Company.

(i) Notwithstanding anything to the contrary in this Release, in the event a Change of Control does not occur within sixty (60) days after Employee's employment with the Company ceases, any such Release delivered to the Company (x) shall be void and without force or effect as it relates to Section 10(d) of the Employment Agreement, but (y) if applicable, shall be effective as it relates to Section 10(b) of the Employment Agreement.

3. **Notices**. Every notice relating to this Release shall be in writing and if given by mail shall be given by registered or certified mail with return receipt requested. All notices to the Company shall be delivered to the Company's Chief Execu Officer at ZIVO Bioscience Inc., 2804 Orchard Lake Rd., Suite 202, Keego Harbor, MI 48320. All notices by the Company to Employee shall be delivered to Employee personally or addressed to Employee at Employee's last residence address as then contained in the Company's records, or such other address as Employee may designate. Either party by notice to the other may designate a different address to which notices shall be addressed. Any notice given by the Company to Employee at Employee's last designated address shall be effective to bind any other person who shall acquire rights hereunder.

4. **Governing Law**. To the extent not preempted by Federal law, this Release shall be governed by and construed in accordance with the laws of the State of Michigan, without giving effect to conflicts of laws.

5. **Counterparts**. This Release may be executed in two (2) or more counterparts, all of which when taken together shall be considered one (1), and the same Release and shall become effective when the counterparts have been signed by each party and delivered to the other party; it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such facsimile signature page were an original thereof.

6. **Entire Agreement**. This Release, when aggregated with the Employment Agreement, contains the entire understanding of the parties with respect to the subject matter hereof and together supersedes all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into this Release.

IN WITNESS WHEREOF, the parties hereto have executed this Release as of the day and year first written above.

Philip M. Rice II, Employee
ZIVO Bioscience Inc.

By: */s/*
Its:

WAIVER OF 21 DAY NOTICE PERIOD

I have been provided with the Employment Agreement Release ("Release") between ZIVO Bioscience Inc. (the "Company") and Philip M. Rice II.

I understand that I have twenty-one (21) days from the date the Release was presented to me to consider whether or not to sign the Release. I further understand that I have the right to seek counsel prior to signing the Release.

I am knowingly and voluntarily signing and returning the Release prior to the expiration of the twenty-one (21)-day consideration period. I understand that I have seven (7) days from signing the Release to revoke the Release, by delivering a written notice of revocation to the Company's Chief Financial Officer at ZIVO Bioscience Inc., 2804 Orchard Lake Rd., Suite 202, Keego Harbor, MI 48320.

/s/ Philip M. Rice II

Philip M. Rice II

Dated:

Exhibit 10.36

ZIVO BIOSCIENCE, INC.
STOCK OPTION GRANT NOTICE
(2019 OMNIBUS LONG-TERM INCENTIVE PLAN)

Zivo Bioscience, Inc. (the "***Company***"), pursuant to its 2019 Omnibus Long-Term Incentive Plan (the "***Plan***") hereby grants to Participant an option to purchase the number of Shares of the Company's common stock set forth below. This Option is subject to all of the terms and conditions as set forth in this Stock Option Grant Notice, in the Award Agreement, the Plan, the Notice of Exercise, and that certain Employment Agreement between Participant and the Company dated November 15, 2019 (the "***Employment Agreement***") all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Award Agreement will have the same definitions as in the Plan or the Award Agreement. If there is any conflict between the terms in this Stock Option Grant Notice and the Plan, the terms of the Plan will control.

Participant:	Andrew Dahl
Date of Grant:	November 15, 2019
Vesting Commencement Date:	See Employment Agreement
Number of Shares Subject to Option:	35,000,000
Exercise Price (Per Share):	$0.10
Total Exercise Price:	$3,500,000
Expiration Date:	November 15, 2029

Type of Grant: Nonstatutory Stock Option

Exercise Schedule: See Employment Agreement

Vesting Schedule: See Employment Agreement

Payment: By one or a combination of the following items (described in the Award Agreement):

[ ] By cash, check, bank draft or money order payable to the Company

[ ] Pursuant to a Regulation T Program if the shares are publicly traded

[ ] By delivery of already-owned shares if the shares are publicly traded

Additional Terms/Acknowledgements: Participant acknowledges receipt of, and understands and agrees to, this Stock Option Grant Notice, the Award Agreement and the Plan. Participant acknowledges and agrees that this Stock Option Grant Notice and the Award Agreement may not be modified, amended or revised except as provided in the Plan. Participant further acknowledges that as of the Grant Date, this Stock Option Grant Notice, the Award Agreement, and the Plan set forth the entire understanding between Participant and the Company regarding this Option award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of, if applicable, (i) equity awards previously granted and delivered to Participant, (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law and (iii) any written employment or severance arrangement or other written agreement entered into between the Company and Participant specifying the terms that should govern this Option upon the terms and conditions set forth therein.

By accepting this option, Participant acknowledges having received and read the Stock Option Grant Notice, the Award Agreement and the Plan and agrees to all of the terms and conditions set forth in these documents. Participant consents to receive Plan and related documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

ZIVO BIOSCIENCE, INC.	**PARTICIPANT**
By: */s/ Philip M. Rice II* Signature	By: */s/ Andrew A. Dahl* Signature
Title: Chief Financial Officer Date: November 29, 2019	Date: November 29, 2019

ATTACHMENTS: Award Agreement, 2019 Omnibus Long-Term Incentive Plan and Notice of Exercise, Employment Agreement

Exhibit 10.37

ZIVO BIOSCIENCE, INC.
STOCK OPTION GRANT NOTICE
(2019 OMNIBUS LONG-TERM INCENTIVE PLAN)

Zivo Bioscience, Inc. (the "***Company***"), pursuant to its 2019 Omnibus Long-Term Incentive Plan (the "***Plan***") hereby grants to Participant an option to purchase the number of Shares of the Company's common stock set forth below. This Option is subject to all of the terms and conditions as set forth in this Stock Option Grant Notice, in the Award Agreement, the Plan, the Notice of Exercise, and that certain Employment Agreement between Participant and the Company dated November 15, 2019 (the "***Employment Agreement***") all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Award Agreement will have the same definitions as in the Plan or the Award Agreement. If there is any conflict between the terms in this Stock Option Grant Notice and the Plan, the terms of the Plan will control.

Participant:		_____
Date of Grant:		_____
Vesting Commencement Date:		_____
Number of Shares Subject to Option:		_____
Exercise Price (Per Share):	$	_____
Total Exercise Price:	$	_____
Expiration Date:		_____

Type of Grant: Nonstatutory Stock Option

Exercise Schedule: _____

Vesting Schedule: _____

Payment: By one or a combination of the following items (described in the Award Agreement):

[ ] By cash, check, bank draft or money order payable to the Company

[ ] Pursuant to a Regulation T Program if the shares are publicly traded

[ ] By delivery of already-owned shares if the shares are publicly traded

Additional Terms/Acknowledgements: Participant acknowledges receipt of, and understands and agrees to, this Stock Option Grant Notice, the Award Agreement and the Plan. Participant acknowledges and agrees that this Stock Option Grant Notice and the Award Agreement may not be modified, amended or revised except as provided in the Plan. Participant further acknowledges that as of the Grant Date, this Stock Option Grant Notice, the Award Agreement, and the Plan set forth the entire understanding between Participant and the Company regarding this Option award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of, if applicable, (i) equity awards previously granted and delivered to Participant, (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law and (iii) any written employment or severance arrangement or other written agreement entered into between the Company and Participant specifying the terms that should govern this Option upon the terms and conditions set forth therein.

By accepting this option, Participant acknowledges having received and read the Stock Option Grant Notice, the Award Agreement and the Plan and agrees to all of the terms and conditions set forth in these documents. Participant consents to receive Plan and related documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

ZIVO BIOSCIENCE, INC.	**PARTICIPANT**
By: */s/*	By: */s/*
Signature	Signature
Title:	Date:
Date:	

ATTACHMENTS: Award Agreement, 2019 Omnibus Long-Term Incentive Plan and Notice of Exercise, Employment Agreement

Exhibit 14.1

ZIVO BIOSCIENCE

EMPLOYEE ETHICS POLICIES

Code of Ethics and Business Conduct for Officers, Directors and Employees

1. Treat in an Ethical Manner Those to Whom Zivo Bioscience Has an Obligation

We are committed to honesty, just management, fairness, providing a safe and healthy environment free from the fear of retribution, and respecting the dignity due everyone.

For the communities in which we live and work we are committed to observe sound environmental business practices and to act as concerned and responsible neighbors, reflecting all aspects of good citizenship.

For our shareholders we are committed to pursuing sound growth and earnings objectives and to exercising prudence in the use of our assets and resources.

2. Promote a Positive Work Environment

All employees want and deserve a workplace where they feel respected, satisfied, and appreciated. We respect cultural diversity and recognize that the various communities in which we may do business may have different legal provisions pertaining to the workplace. As such, we will adhere to the limitations specified by law in all of our localities, and further, we will not tolerate harassment or discrimination of any kind -- especially involving race, color, religion, gender, age, national origin, disability, and veteran or marital status.

Providing an environment that supports honesty, integrity, respect, trust, responsibility, and citizenship permits us the opportunity to achieve excellence in our workplace. While everyone who works for the Company must contribute to the creation and maintenance of such an environment, our executives and management personnel assume special responsibility for fostering a work environment that is free from the fear of retribution and will bring out the best in all of us. Supervisors must be careful in words and conduct to avoid placing, or seeming to place, pressure on subordinates that could cause them to deviate from acceptable ethical behavior.

3. Protect Yourself, Your Fellow Employees, and the World We Live In

We are committed to providing a drug-free, safe, and healthy work environment, and to observe environmentally sound business practices. We will strive, at a minimum, to do no harm and where possible, to make the communities in which we work a better place to live. Each of us is responsible for compliance with environmental, health, and safety laws and regulations. Observe posted warnings and regulations. Report immediately to the appropriate management any accident or injury sustained on the job, or any environmental or safety concern you may have.

4. Keep Accurate and Complete Records

We must maintain accurate and complete Company records. Transactions between the Company and outside individuals and organizations must be promptly and accurately entered in our books in accordance with generally accepted accounting practices and principles. No one should rationalize or even consider misrepresenting facts or falsifying records. It will not be tolerated and will result in disciplinary action.

5. Obey the Law

We will conduct our business in accordance with all applicable laws and regulations. Compliance with the law does not comprise our entire ethical responsibility. Rather, it is a minimum, absolutely essential condition for performance of our duties. In conducting business, we shall:

a. Strictly Adhere to All Antitrust Laws

Officer, directors and employees must strictly adhere to all antitrust laws. Such laws exist in the United States, the European Union, and in many other countries where the Company may conduct business. These laws prohibit practices in restraint of trade such as price fixing and boycotting suppliers or customers. They also bar pricing intended to run a competitor out of business; disparaging, misrepresenting, or harassing a competitor; stealing trade secrets; bribery; and kickbacks.

b. Strictly Comply with All Securities Laws

In our role as a publicly owned company, we must always be alert to and comply with the security laws and regulations of the United States and other countries.

i. Do Not Engage in Speculative or Insider Trading

Federal law and Company policy prohibits officers, directors and employees, directly or indirectly through their families or others, from purchasing or selling company stock while in the possession of material, non-public information concerning the Company. This same prohibition applies to trading in the stock of other publicly held companies on the basis of material, non-public information. To avoid even the appearance of impropriety, Company policy also prohibits officers, directors and employees from trading options on the open market in Company stock under any circumstances.

Material, non-public information is any information that could reasonably be expected to affect the price of a stock. If an officer, director or employee is considering buying or selling a stock because of inside information they possess, they should assume that such information is material. It is also important for the officer, director or employee to keep in mind that if any trade they make becomes the subject of an investigation by the government, the trade will be viewed after-the-fact with the benefit of hindsight. Consequently, officers, directors and employees should always carefully consider how their trades would look from this perspective.

Two simple rules can help protect you in this area: (1) Don't use non-public information for personal gain. (2) Don't pass along such information to someone else who has no need to know.

This guidance also applies to the securities of other companies for which you receive information in the course of your employment at Zivo Bioscience.

ii. Be Timely and Accurate in All Public Reports

As a public company, Zivo Bioscience must be fair and accurate in all reports filed with the United States Securities and Exchange Commission. Officers, directors and management of Zivo Bioscience are responsible for ensuring that all reports are filed in a timely manner and that they fairly present the financial condition and operating results of the Company.

Securities laws are vigorously enforced. Violations may result in severe penalties including forced sales of parts of the business and significant fines against the Company. There may also be sanctions against individual employees including substantial fines and prison sentences.

The Chief Executive Officer and Chief Financial Officer will certify to the accuracy of reports filed with the SEC in accordance with the Sarbanes-Oxley Act of 2002. Officers and Directors who knowingly or willingly make false certifications may be subject to criminal penalties or sanctions including fines and imprisonment.

6. Avoid Conflicts of Interest

Our officers, directors and employees have an obligation to give their complete loyalty to the best interests of the Company. They should avoid any action that may involve, or may appear to involve, a conflict of interest with the company. Officers, directors and employees should not have any financial or other business relationships with suppliers, customers or competitors that might impair, or even appear to impair, the independence of any judgment they may need to make on behalf of the Company.

Here are some ways a conflict of interest could arise:

- Employment by a competitor, or potential competitor, regardless of the nature of the employment, while employed by Zivo Bioscience.
- Acceptance of gifts, payment, or services from those seeking to do business with Zivo Bioscience.
- Placement of business with a firm owned or controlled by an officer, director or employee or his/her family.
- Ownership of, or substantial interest in, a company that is a competitor, client or supplier.
- Acting as a consultant to a Zivo Bioscience customer, client or supplier.
- Seeking the services or advice of an accountant or attorney who has provided services to Zivo Bioscience.

Officers, directors and employees are under a continuing obligation to disclose any situation that presents the possibility of a conflict or disparity of interest between the officer, director or employee and the Company. Disclosure of any potential conflict is the key to remaining in full compliance with this policy.

7. Compete Ethically and Fairly for Business Opportunities

We must comply with the laws and regulations that pertain to the acquisition of goods and services. We will compete fairly and ethically for all business opportunities. In circumstances where there is reason to believe that the release or receipt of non-public information is unauthorized, do not attempt to obtain and do not accept such information from any source.

If you are involved in Company transactions, you must be certain that all statements, communications, and representations are accurate and truthful.

8. Avoid Illegal and Questionable Gifts or Favors

The sale and marketing of our products and services should always be free from even the perception that favorable treatment was sought, received, or given in exchange for the furnishing or receipt of business courtesies. Officers, directors and employees of Zivo Bioscience will neither give nor accept business courtesies that constitute, or could be reasonably perceived as constituting, unfair business inducements or that would violate law, regulation or policies of the Company, or could cause embarrassment to or reflect negatively on the Company’s reputation.

9. Maintain the Integrity of Consultants, Agents, and Representatives

Business integrity is a key standard for the selection and retention of those who represent Zivo Bioscience. Agents, representatives, or consultants must certify their willingness to comply with the Company’s policies and procedures and must never be retained to circumvent our values and principles. Paying bribes or kickbacks, engaging in industrial espionage, obtaining the proprietary data of a third party without authority, or gaining inside information or influence are just a few examples of what could give us an unfair competitive advantage and could result in violations of law.

10. Protect Proprietary Information

Proprietary Company information may not be disclosed to anyone without proper authorization. Keep proprietary documents protected and secure. In the course of normal business activities, suppliers, customers, and competitors may sometimes divulge to you information that is proprietary to their business. Respect these confidences.

11. Obtain and Use Company Assets Wisely

Personal use of Company property must always be in accordance with corporate policy. Proper use of Company property, information resources, material, facilities, and equipment is your responsibility. Use and maintain these assets with the utmost care and respect, guarding against waste and abuse, and never borrow or remove Company property without management's permission.

12. Follow the Law and Use Common Sense in Political Contributions and Activities

Zivo Bioscience encourages its employees to become involved in civic affairs and to participate in the political process. Employees must understand, however, that their involvement and participation must be on an individual basis, on their own time, and at their own expense. In the United States, federal law prohibits corporations from donating corporate funds, goods, or services, directly or indirectly, to candidates for federal offices -- this includes employees' work time. Local and state laws also govern political contributions and activities as they apply to their respective jurisdictions, and similar laws exist in other countries.

13. Board Committees.

The Company shall establish an Audit Committee empowered to enforce this Code of Ethics. The Audit Committee will report to the Board of Directors at least once each year regarding the general effectiveness of the Company’s Code of Ethics, the Company’s controls and reporting procedures and the Company’s business conduct.

14. Disciplinary Measures.

The Company shall consistently enforce its Code of Ethics and Business Conduct through appropriate means of discipline. Violations of the Code shall be promptly reported to the Audit Committee. Pursuant to procedures adopted by it, the Audit Committee shall determine whether violations of the Code have occurred and, if so, shall determine the disciplinary measures to be taken against any employee or agent of the Company who has so violated the Code.

The disciplinary measures, which may be invoked at the discretion of the Audit Committee, include, but are not limited to, counseling, oral or written reprimands, warnings, probation or suspension without pay, demotions, reductions in salary, termination of employment and restitution.

Persons subject to disciplinary measures shall include, in addition to the violator, others involved in the wrongdoing such as (i) persons who fail to use reasonable care to detect a violation, (ii) persons who if requested to divulge information withhold material information regarding a violation, and (iii) supervisors who approve or condone the violations or attempt to retaliate against employees or agents for reporting violations or violators.

Accepted:

Signature: _____

Date: _____

Print Name: _____

Exhibit 21.1

Subsidiaries of the Registrant

ZIVO Bioscience, Inc. has the following Subsidiaries:	Jurisdiction of Incorporation or Organization
Health Enhancement Corporation	Nevada Corporation
HEPI Pharmaceuticals, Inc.	Nevada Corporation
Wellmetrix, LLC (fka WellMetris, LLC)	Delaware limited liability corporation
Zivo Biologic, Inc.	Delaware corporation

Exhibit 31.1

Certification Pursuant to pursuant to Rule 13a-14(a) or Rule 15d-14(a)
of the Securities Exchange Act of 1934, as amended

I, Andrew D. Dahl, certify that:

1. I have reviewed this Annual report on Form 10-K of Zivo Bioscience, Inc. (the "Company");

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

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

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

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

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

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

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

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

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

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

Date: March 26, 2020

/s/ Andrew D. Dahl
Andrew D. Dahl
Chief Executive Officer

Exhibit 31.2

Certification Pursuant to pursuant to Rule 13a-14(a) or Rule 15d-14(a)
of the Securities Exchange Act of 1934, as amended

I, Philip M. Rice II, certify that:

1. I have reviewed this Annual report on Form 10-K of Zivo Bioscience, Inc. (the "Company");

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

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

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

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

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

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

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

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

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

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

Date: March 26, 2020

/s/ Philip M. Rice II
Philip M. Rice II
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(Subsections (a) and (b) of Section 1350,
Chapter 63 of Title 18, United States Code)

In connection with the Annual Report of Zivo Bioscience, Inc., a Nevada corporation (the "Company"), on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission (the "Report"), I, Andrew D. Dahl, Chief Administrative Officer of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350), that to the best of my knowledge and belief:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 26, 2020

/s/ Andrew D. Dahl
Andrew D. Dahl
Chief Executive Officer

A SIGNED ORIGINAL OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 HAS BEEN PROVIDED TO ZIVO BIOSCIENCE, INC. AND WILL BE RETAINED BY ZIVO BIOSCIENCE, INC. AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.

Exhibit 32.2

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(Subsections (a) and (b) of Section 1350,
Chapter 63 of Title 18, United States Code)

In connection with the Annual Report of Zivo Bioscience, Inc., a Nevada corporation (the "Company"), on Form 10-K for the period ended December 31, 2019 as filed with the Securities and Exchange Commission (the "Report"), I, Philip M. Rice II, Chief Accounting Officer of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350), that to the best of my knowledge and belief:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 26, 2020

/s/ Philip M. Rice II
Philip M. Rice II
Chief Financial Officer

A SIGNED ORIGINAL OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 HAS BEEN PROVIDED TO ZIVO BIOSCIENCE, INC. AND WILL BE RETAINED BY ZIVO BIOSCIENCE, INC. AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.