UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM 8-K CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): November 8, 2017

ZIVO BIOSCIENCE, INC.

(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation) 000-30415 (Commission File Number) 87-0699977 (IRS Employer Identification No.)

2804 Orchard Lake Road, Suite 202, Keego Harbor, Michigan 48320

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (248) 452-9866

Not applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

[] Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

[] Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

[] Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

[] Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events

On November 8, 2017 the Company released the President's Report To Shareholders dated November 8, 2017, a copy of which is filed herewith as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits

Exhibit 99.1 - President's Report to Shareholders dated November 8, 2017.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

HEALTH ENHANCEMENT PRODUCTS, INC.

Date: November 8, 2017

By: <u>/s/ Philip M. Rice, II</u> Philip M. Rice, II, Chief Financial Officer Good morning and welcome to those of you here in person, and to those on the call-in line. I'd also like to acknowledge our board of directors, key staff and consultants in attendance or online today. My name is Andrew Dahl, and I currently serve as president and chief executive officer of ZIVO Bioscience, a fully-reporting public company trading in the OTC market.

Before proceeding further, I must advise you that this report and any Exhibits to it contain forward-looking statements that involve risks and uncertainties. These statements reflect the Company's future plans, objectives, expectations and intentions, and the assumptions underlying or relating to any of these statements. These statements may be identified by the use of the words "anticipate," "expect," "estimate," "intend," "believe," and similar expressions. The Company's actual results could differ materially from those discussed in these statements. Factors that could contribute to these differences include, but are not limited to, those discussed in this report.

In the 12 months since our last shareholder meeting, the Company has focused on capital funding activities for the ZIVO research I'm pleased to report that this year has seen a significant increase in funding, such that we have been able to spend much less time fundraising and more time activating the pharma and food side of the ZIVO enterprise. We're moving forward.

For those of you unfamiliar with mission of ZIVO Bioscience, the Company holds significant intellectual property in the form of bioactive compounds, patented applications and processes, an optimized algal strain, and nutritional products derived from our proprietary algal biomass that can find their way into food, feed, supplements and even therapeutics.

Last year, we unveiled the food and feed side of the value creation strategy, positioning the algal biomass itself as a valuable product. Some of you were here to sample the vegan protein power drink concept. We continue to work on new product concepts.

On the therapeutic side, we're conducted various experiments and studies over the past few years to support claims for healthy immune response in humans and animals, joint health and a healthy cholesterol balance. Our pharma research has focused primarily on bovine mastitis, an inflammation of the udder that impacts milk production and is responsible for nearly \$3 billion in annual losses to US dairy producers and billions more worldwide.

The bovine mastitis research is in its final phase of research and funded. Per our option collaboration agreement, we are to conduct in vivo testing under the direction of Dr. Alfonso Lago at the Dairy Experts facility in Tulare County, California, furnish the active compounds plus statistical analysis of the results. We're expecting results from Dairy Experts in the next 60 days.

To keep that research going, we need to grow the algae in sufficient volume to supply samples for the dozens of tests, experiments and studies we are doing. This is a snapshot of a single 6-month period of testing.

As you may know, we began to increase biomass production late last spring, when we contracted Florida Algae, based in Vero Beach Florida, to grow our algae in covered outdoor ponds. In October 2016 Hurricane Matthew essentially shut down the growing operations.

We immediately responded to this by beginning talks with Synthetic Genomics, Inc., or SGI, based in La Jolla, California and...

In early December 2016, entered into an agreement to furnish algal biomass, supernatant, optimized cultivation methods and supporting documentation so that the algae can be produced anywhere in the world under cGMP and FDA food production standards.

We were asking SGI to provide us with algae to keep the bovine mastitis research going on the therapeutic side. We were <u>also</u> contracting SGI to provide algae for feed and food testing, so the demands for production of high-quality feedstock increased substantially.

Dr. Louis Brown, who runs the SGI Imperial Valley facility, expended considerable effort amplifying the algae and growing it in successively larger ponds, and then managing the summer heat when daytime temperatures regularly hit 120 degrees.

These are images of the SGI Imperial Valley facility. Our algae strain naturally flocculates, or rises to the surface in a thick mat. This has some advantages: By creating a light barrier, our algae blocks sunlight to other algae and parasites that may compete with it. Also, the floating mat makes it easier to harvest our strain – something that can be exploited commercially.

I had mentioned culture amplification. From March to today, Dr. Brown and his team scaled up the algae culture from small $\frac{1}{2}$ liter flasks up to 50,000-liter ponds and then finally into this 1 million liter open pond **19** where we expect to harvest almost a ton of biomass this month, and plan to do so for the next couple of months.

Dr. Rob Brown, Vice-President of SGI's phototrophic operations, no relation to Dr. Louis Brown, advised us to consider a non-GMO, classical strain development program to help optimize growth, heat tolerance and enhanced production.

The first step was to engage SGI genetic scientists to fully sequence the genome of our proprietary algae strain.

That gene sequencing commenced in early May, and we're awaiting results.

In May of this year, we reached out to Algatek as a potential backup production resource to SGI. Algatek produces biomass in 65,000 liter photobioreactors at its facility in Asturias, Spain. The Algatek photobioreactors are triangular in cross section, about 2 feet by 3 feet, and roughly 100 yards long. The sun is replaced with high-intensity LEDs arranged across the top of the bioreactor.

Unlike outside ponds, Algatek engineers have very precise control of every environmental factor and can manipulate them to see if cultivation speed or quality is improved. We're expecting a report shortly.

At the same time, Algatek is exploring an algal paste product for the European aquaculture market, featuring our proprietary algae. In October, Algatek engaged the Institute of Marine Oceanology to test our algae in cultivations of shrimp, shellfish, mackerel, salmon and cod. We are awaiting results of those tests and expect to publish them in early December.

Back in the US, we entered into a licensing agreement with animal health innovator NutriQuest in April of this year. Our partners at NutriQuest wasted no time in arranging for tests of our dried algal biomass as a potential feed ingredient. To date, we have completed two poultry studies and one piglet study.

The poultry studies, specifically targeting broilers, were very successful in boosting productivity across the board by making the birds healthier and less susceptible to pathogens common on chicken farms. Next week, we begin a third poultry test to establish price-performance parameters. At the request of our licensee, we're not disclosing the specific results or targets of these tests publicly, so that NutriQuest can maintain a competitive advantage as we move toward market launch next year.

We are, however, quite pleased with the results, and our licensee is pressing us to complete the regulatory process so that we can enter the market with a very competitive phytogenic poultry feed ingredient. For those of you unfamiliar with the poultry industry here in the US, the annual amount of poultry feed consumed in the US exceeds 61 billion pounds, according to our friends at NutriQuest.

In the global poultry feed market, phytogenic ingredients is the fastest growing segment, currently generating about \$780 million in sales annually, and growing at 8% annually.

We could very well take a substantial share of that market segment as we build production capacity.

Last year, we advised our board that production capacity would be a point of constraint on our growth from the food side of the business. The pharma side is not affected by production capacity.

Rather than raise money or create debt to build and operate our own facilities, ZIVO principals had planned to outsource production to established algae growers, providing them with our algal strain and technical support in return for guaranteed production quotas.

To that end, we hired Harmon Consulting principal Valerie Harmon, formerly Director of Cultivation Practices at Cyanotech, a stint as Director of Cultivation for Aurora Algae in Australia, and then back to Hawaii as Director of R&D for Cellana, along with a business development role in each over the past 20 years. Ms. Harmon was retained in early October to identify, vet and engage established algae growers around the world, initially focusing on India, China and parts of Southeast Asia. She will be visiting the most promising prospects in the next few weeks to make sure they are capable of growing at the scale we demand, and still meet quality and safety standards. From that point forward, she will assist us in arranging the contracts and coordinating tech transfer and support to these growers.

We would, in effect, be building a global supply chain, acting as exclusive brokers and importers of our own algal biomass into the US or EU.

This requires specific expertise and we have also engaged Mr. Joe Miele, a food and beverage industry consultant and project manager with a track record of leading multifunctional and multinational teams in commercializing innovative food and beverage products, an expertise honed at Pepsico and its subsidiary Tropicana, where he led the commercialization effort of the Tropicana Pure Premium product line from lab to launch, as well as other Pepsico co-ventures with Starbucks and Lipton Tea.

We mentioned the Burdock Group in last year's shareholder meeting. Burdock is managing the FDA compliance process for ZIVO, as they have for dozens of companies over the past 20-plus years. At this juncture, we are expecting to conclude our FDA-mandated product stability study by year's end, or a bit into January, as well as the long-term toxicology study required for human GRAS self-certification. The dried algal biomass is doing well in both studies. As soon as the human GRAS certification effort is completed, we will immediately pursue certification in poultry, dovetailing that approval with the expected availability of our poultry feed product in early to mid-2018.

On the food/feed side of the business, as we near the conclusion of the human FDA regulatory process with our algal biomass, ZIVO is transitioning from research and compliance to the operational aspects of production and marketing. That includes building a small, agile team to handle a virtualized food and beverage ingredient supplier and licensor of intellectual property. We are relying on our key consultants, including Ms. Harmon and Mr. Miele to bring subject matter expertise to the table.

We have, however, concluded that an operating executive is now critically necessary, and so have retained Mr. Adam Chiasson to fill the role of Vice-President, Operations. Adam most recently served as Director of Operations at Accuri Cytometers, a rising star of Michigan's biomed startups, recently purchased by BD Life Sciences, also known as Becton Dickinson. Rather than moving with the Accuri acquisition to San Diego, Mr. Chiasson chose to stay in Michigan, much to our advantage. He possesses the skills and expertise required to build and operate a global supply chain and a lean organization to move the company forward.

On the pharma side, in order to have a valuable "discovery stage" therapeutic candidate, ZIVO Bioscience, must fully describe the bioactive compound or compounds, an activity we refer to as Analysis or Characterization, and then prove that it works as intended, which we refer to as Validation. Most of the results that we publish are the validation studies – does it work for a specific disease in a specific animal model, and is it safe on a variety of levels.

Test results for bovine mastitis, canine joint health and human cholesterol are all considered therapeutic targets, meaning the resulting product will be classified as a drug, not as a dietary supplement or a food/feed ingredient. This is an important distinction because it's easy to confuse therapeutic targets with nutritional health claims for the algae itself. Both may, in the end, be very valuable.

In terms of our pharma program, we have a great disease model, great validation results and high confidence that we could repeat them again. This year, we've been accelerating the analysis work so that it can dovetail with the validation work, the combined results forming the basis for a discovery-stage pharma deal with our development partner.

To help manage this work, we've engaged immunologist Dr. Paul Wooley, a pioneer in glycocalyx research and immune models as a senior consultant. Dr. Wooley is a former professor of Biology at Wichita State, professor of Orthopedic Surgery at University of Kansas School of Medicine and Wayne State University School of Medicine, and among other posts, is Chief Science Officer at Kardiatonos Inc.

Dr. Wooley works closely with Dr. Amy Steffek, our director of R&D, to shape the direction of research underway. We have engaged a number of contract research organizations and university labs to works in multiple parallel pathways, sharing information to compress timeframes.

We've contracted with the University of Georgia's Center for Complex Carbohydrate Research, The National Center for Natural Products Research at the University of Mississippi, the Donald Danforth Plant Science Center in St. Louis, Elicityl in Grenoble, France, Chemily Glycosciences in Atlanta and the Boston Institute for Biotechnology to undertake analysis of bioactive compounds.

We anticipate that the analysis work conducted with this group will dovetail with the *in vivo* and *in vitro* validation work being conducted by Dr. Alfonso Lago at Dairy Experts in California, and Dr. Raphael Nir at SBH Biosciences in Natick, Massachusetts, respectively. Together, this would form the package submitted to our drug development partner.

The information we gather in the pharma research and development effort also has an influence on the food/feed applications. We are specifically referring to the non-starch polysaccharides, or NSPs, that have long been known to provide nutritional benefits. Chinese and Japanese food science researchers have been studying these compounds for decades. Most every plant and algal specie produces NSPs, but they are as individual as fingerprints, in the sense that each of the known 72,000 algal species seems to produce its own variation of these polysaccharides, each of which has differing degrees of bioavailability, absorption, solubility, bioactivity, stability, ease of extraction and therefore, commercial value.

Last year, we introduced a vegan protein drink ingredient at the annual shareholders meeting. Some of you may have sampled it. We continue to develop the processes to deliver a stable, healthful and palatable food/feed ingredient. In the case of algae, once it's grown, the next step is to rinse, dewater and dry that algae as quickly as possible because it degrades quickly once it's removed from the pond, affecting the yield and quality. This is especially true in hot climates like India, Southeast Asia and the American Southwest.

Over the past year, ZIVO researchers and vendors have been testing different dewatering techniques, drying processes and preprocessing methods to create an adaptable ingredient for foods and beverages. Taste-testing aside, food and beverage manufacturers are concerned with safety, stability, solubility, mouth feel, odor and most importantly, cost. Will it stay in solution or create sediment? Will it interact with other ingredients to create off-notes or unpleasant odors? Will it bleed green pigment or pheophorbides into other ingredients? Will it require special handling that will add cost? We've tested various drying processes – belt, spray-dry and drum, with different companies and operating conditions, subjecting all the samples to rigorous safety testing before they're used in poultry or mouse studies. Working with two different food labs, we've developed post-drying processes to make sure that odor levels remain stable and neutral, and the same applies to taste. These procedures are part of the licensing package we provide to potential customers who may be integrating our algal biomass into their production workflow.

To summarize, ZIVO principals have been working in two separate tracks to deliver licensable intellectual property to strategic partners. There is no shortage of opportunity or demand for our products. It is more a calculation of which product and market vertical will yield the most value in the shortest period of time, given the available financial, scientific and production resources at hand. We can go in many different directions, all of them interesting and exciting, but the reality is we need to remain focused on two, maybe three, key opportunities. The others will resolve themselves as revenues are realized.

Phil Rice and I have extensively modeled the financial implications of a half-dozen market verticals of 33 such verticals in our spreadsheets, and we confirm there is no lack of opportunity, tempering with a realistic assessment of how quickly we can ramp up production to satisfy demand.

I am asked this question frequently, so we'll address it here again: Some of our stakeholders are concerned about time gaps between studies, results and follow-up work. The Company has no internal testing facilities, no lab or clinical staff. Other than our exceptional director of R&D, supported internally by our administrative liaison and contract consultants, the R&D work is conducted by independent labs, contract research organizations, academic institutions or independent researchers.

We accommodate the schedules and workloads of these institutions and individuals, and then coordinate their schedules and deliverables with our timing parameters and capital funding realities. Sometimes, the schedule and deliverables line up perfectly. Other times, they do not. It's a lot of work for a small staff, but it is ultimately a cost-effective and flexible approach, because it allows us to change direction without having to lay off researchers specialized in one area of science and auction off costly lab equipment or shut down facilities, and then find competent scientists in another area of research, only to then rebuild a lab for their specific requirements. Some biotechs have been forced to do so. Many did not survive the transition. The Company can remain flexible in the face of changing circumstances, especially when there are gaps in funding.

We've been able to recruit top researchers in specialized fields of study, make our best deal and adjust to the timeframe available. In the end, we're not married to one research organization, one university or even a single course of action. And the same will hold true with our compliance, manufacturing and marketing partners.

Just to wrap this up, the upcoming milestones we're looking forward to announcing over the next several months are:

Conclusion of the bovine mastitis study and negotiation for an option or licensing deal Øbtain GRAS status for human consumption of algal biomass Øbtain GRAS/AAFCO status for poultry feed ingredient Expand global production capacity through offtake agreements

That brings you up to date on ZIVO's core business. I'd like to turn our attention to WellMetris, the metabolic testing platform ZIVO acquired in August of 2013.

For those of you unfamiliar with this wholly owned subsidiary of ZIVO Bioscience, WellMetris LLC was created to accept the assets of Wellness Indicators, Inc. formerly headquartered in Wauconda, Illinois, after its primary lender foreclosed on the core assets in early 2013. ZIVO Bioscience has over time diverted a very small portion of its capital funding and some senior staff time to redevelop the wellness technology, secure important IP and create new IP to expand upon the original product thesis and market assumptions. We have recently secured a new name and the relevant Web domain – WellMetrix.

WellMetrix is in the business of developing a novel metabolic testing platform that offers unprecedented insights into personal health and nutrition, all in the privacy of your own home, on your own smartphone. There are several patents pending and 5 more applications in process. We are positioning WellMetrix to take advantage of several converging trends.

WellMetrix offers unprecedented insights into personal health with a rapid and novel self-administered urine test that determines if you're really healthy or on the opposite end of the spectrum, truly unhealthy but asymptomatic. Medical diagnostics are not designed to answer these questions.

Our test measures 8 biomarkers for oxidative stress, inflammation, capacity for stress and other indicators to gauge metabolic efficiency - or, how healthy you are.

The market verticals are substantial and open to innovation at this level. However, we have moved product development forward in small increments, given the focus on monetizing ZIVO assets over the last year.

We're now considering a way to spin off WellMetris or fund it independently of ZIVO, but still retain a significant equity stake for ZIVO and its shareholders. The Company has retained The Sandstone Group, an affiliate of Newbridge Securities, Inc., based in Miami, Florida to act as Merger & Acquisitions advisor.

We will keep our shareholders apprised of progress on this front.

Thank you for your attention. I'd like to invite our board chair and chief financial officer, Philip Rice, back to the podium. We'll begin taking questions shortly.

Q&A

Thank You



Safe Harbor Statement

Except for any historical information, the matters discussed in this presentation contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements involve risks and uncertainties. A number of factors could cause actual results to differ from those indicated in the forward-looking statements, including the timing of completion of a trial, actual future clinical trial results being different than the results the company has obtained to date, and the company's ability to secure funding. Such statements are subject to a number of factore performance and those actual results or developments may differ materially from those set forth in the forward-looking statements. The company undertakes no obligation to publicly update or revise forward-looking statements, whether as a result of new information or otherwise.



2107 Annual Shareholder Meeting

November 8, 2017 Detroit, Michigan

WELCOME

Meeting Open

Phillip M. Rice II Chairman & Chief Financial Officer



November 8, 2017 Detroit, Michigan

Report to Shareholders

Andrew A. Dahl President & Chief Executive Officer

2017 Annual Shareholder Meeting

Notice to Shareholders and Investors

This presentation and any Exhibits to it contain forward-looking statements that involve risks and uncertainties. These statements reflect the Company's future plans, objectives, expectations and intentions, and the assumptions underlying or relating to any of these statements. These statements may be identified by the use of the words "anticipate," "expect," "estimate," "intend," "believe," and similar expressions. The Company's actual results could differ materially from those discussed in these statements. Factors that could contribute to these differences include, but are not limited to, those discussed in this document.



The Last 12 Months

Focus on capital funding and managing available resources

- $\circ~$ Increased funding within the last 12 months
- Re-activate R&D across the board
- Address opportunities quickly

CEO Report to Shareholders

Algae Program

Significant intellectual property. Bioactive compounds extracted from proprietary algal cultures. Valuable nutritional products.





Food & Feed



Positioning ZIVO algal biomass as a valuable nutritional product

- $\,\circ\,\,$ Healthful ingredient in vegan foods and beverages
- $\circ\;$ Non-GMO, sustainable and antibiotic-free protein source
- $\circ~$ Valuable animal feed ingredient

Value Creation

Therapeutics

ZIVO algae a source of bioactive compounds that may serve as templates for development of therapeutic agents

 $\,\circ\,$ Immune modulation, joint health $\,$ in humans and animals $\,$

ОН

OH

- $\circ~$ Human cholesterol management through CETP inhibition
- o Bovine mastitis treatment



Bovine Mastitis

A four-year research effort now in its final phases

- $\circ~$ Final validation phase in dairy cows
- $\circ~$ Analysis of bioactive compounds
- o Biostatistical analysis

Testing Matrix

Maxadaxin Sinding	25-022	Servy dried, sheared algae biomass (net 10/24)	30 g	FL Alipse	AB	Use NO	01/03/17	03/09/17	ZMO Sinscie voel 702503	COMPLETE
inavy Metal Profile	28-022	Spray dried algae biomass powder (rund 1/02/17)	50	ALCATI	ARS	Causece	01/09/07	95/12/17	1702553.0 COA	COMPLETE
ficrobio lagy Profile	28-024	Serve dried algae his visos provider (run01/08/17)	75 g	ALCATI	AB	Causara	01/09/17	01/16/17	1705543-0_COA	COMPLETE
atrition Profile	25-015	Serve dried alone biomean powder (run/11/03/17)	150 g	ArCATI	AD	Cruster	91/93/17	01/18/17	1707315-0 COA	CO MPLETE
eavy Metal Profile	25-916	Serve dried alignet biomean constate in an OLAD/171	38	AzCATI	AD	Counce	91/02/17	911217	170555-0 COA	COMPLETE
Aicrosigio preferitie	29-927	Spray dred alger biomas crystals (run 01/02/07) Spray dred alger biomas crystals (run 01/02/07)	3 g 75 g	AZCATI	AB	Counce	01/02/17	01/16/17	17055640 COA	COMPLETE
latrition Profile	28-028	Saray dried algae bio waas crystals (nav 01/02/17)	1.50 g	ALCATI	AB	Causace	01,03/17	01/28/17	17134640_COA	COMPLETE
Nicroslove Project	29-029	Spray dried algoe to mass passder (net 01/02/17)	25 g	AzCATI	AB	Execting	01/09/17	01/22/17	AB-17-QH-001162-01[201712212297]	COMPLETE
ONA Sequencing (Special D)	In-boase grown	Remaining town in-house		NCMA	HENER	HCMA	01/00/17	02/06/17	2016 Sequence Report Eleboarmidium Zhairi 2	COMPLETE
INA Sequencing Descie (0)	107122336	Chilled alose biomaga paster (*15% apilda)	50 11	ArCATI	10	501	91/10/17	01/24/17	Zwo Skouckerson, four service to 3G1	COMPLETE
M1055 Prepphorbide A If we and totall	20-030	Servy dried alose piomass powder (rund1/02/17)	20 g	AzCATI	AB	UN	91/99/17	01/12/17	1709123-1	COMPLETE
41055 Freegonorpide A If we and totall	29-921	Spray dried alizer pio mass cristials (r an Q1/Q2/17)	22.6	ALCATI	AB	1186	01/10/17	05/12/17	1709023-2	COMPLETE
INA Sequencing (Special D)	25-032	Spray dried algae biomaa powder (rund1/02/17)	18	AzCATI	AB	561	01/11/17	01/24/17	Zive Bioacience, four as trained to SG1	COMPLETE
DNA Sequencing (Special D)	26-033	Spray dried, a teared algae biomaas (run 10/24)	1 g	FLAigue	A IS-	501	01/12/17	01/24/17	Zive Bioacience: to an asimplies to SGI	COMPLETE
W galaxies Stokes and American Stokes	d sameling	35 amplits from 500x fractioned appendant		ArCATI	CCRC	MERCENT	01/13/17	01/30/17	27/or 2017_Lavies/DataSommery	COMPLETE
Partikation (de aalt)	500x 15 ml	300x Supernature 25ml		AzCATI	CCRC	CCRC	01/24/17	02/06/17	N/A	COMPLETE
Arsenik (Inorganik) Profile	25-034	Servy dried, a teared algae blom as (not 10/24)	25 g	FL Algue	AD	Counce	01/90/17	02/02/17	N/A	enable to comple
Arsenic (Total) Fratile	20-015	Spray dried, a trained aligner biom and inver 10/240	20 g	FLAIgue	AB	Countrie	01/02/17	02/02/17	1722955-0 COA	CO MPLETE
Seturition Profile	25-036	Served field, a beared alone biomass into 10724	150 x	FL Alger	AD	Country	01/01/17	03/09/17	1721203-0 COA	COMPLETE
1954A3	20-017	Spray dried, a teared algae biomass (rat 10/24)	930 g	FL Algor	AD	751	02/02/17	04/17/17	00525 mp.rt	COMPLETE
aning Acid Profile	28-017	Spray dried, steamed algae biomaas (rue 10/20)	500 g	FLAigae	AB	154	02/02/17	04/17/17	00025-10211	COMPLETE
COA.	28-037		20.6		AS	FSL	02/02/17	04/17/17	nee-action and a second	COMPLETE
		Spray dried, steared algae biomass (run 10/20)		FLAIgue						
Pac haging	107101916	Saray dried, steared algae biomass (non 10/24)	2.35 Hp	FLAIppe	AB	Stix-Pak	02/02/17	03/24/17	R/A	COMPLETE
formalation testing/POCstady	25-016	Servy dried algae biomass powder (run01/00/171	300 g	APCATI	PCS	Nat+Overt	02/28/17	03/30/17	8/A	CO MPLETE
Star Dicksion Chromatography	500x 15 ml	300x Supernature	25 ml	AZCATI	AZATI	CENE	02/06/17	02/20/17	SEC profiles	CO MPLETE
Protein/Cart Separation	500x (5 m)	500x Supermetant	25 11	ArCATI	AKATI	2022	92,99,17	92/20/17	AS012417 Diato birotevap precipitation	COMPLETE
Paritication (depart)	530x 500m/	SIDs Supernatant SIDm1	500 ml	AzCATI	AxATI	CCAC	02/14/17	02/22/17	N/A	COMPLETE
Stat By Texting	101 101 336	Servy difed, a beared elgae biom as (non 10/24) LD1 301936	2.35 kg	FL Algue	AD-SIR Pak-AD	Censorce	02/27/17	045046		ACTIVE
Cytorine/Chevorine Boassay 45	8 anales	8 Sama les from 500x fractis redisopernatant at 4 diluzións	Indexs	ARATICCIC	MDSeal	Southern	02/20/17	081817	15072 2010 CHEMORING OTORING TABLES AND GRAPHS PLUS QCS CT033017 1008	COMPLETE
									1502 27/0 CHEMORINE CYTORINE TABLES AND	
Cytohine/Chemokine Biokowy #1	7 sa reles	75 amales from 500x fractioned supermetant at 4 dilutions	1 mileach	APCATICCEC	Southern	Southern	02/16/17	03/16/17	GRAPHS PLUS OCS CT 033817 100%	COMPLETE
Postry Staty - NE	101122316	Spray dried algae his mass powder (ront13/08/17)	930 g	APCATI	PCS	NatiGaest	03,90/17	05/17/17	NQ NE 0317 report 508 battlery Ne	COMPLETE
Pasticación (de salt)	Samples A, B, C	Ar 500x Supernation from other algae, 500m); 8 meetin; Cr500x Supernation thromour algae, 500m)	500 ml	ALCATI	AXATI	CCRC	04/13/17	06/05/17	N/A	COMPLETE
10-Day Range Finding Study	101050217	Spray dried algae sigmaal + sigmaal wy excap grad (ran 05/02/17)	2.2 g	561	PCS	PSL	45,02,127	07/20/17	Zivefilia cie sceni NC 6 % 278 ptD ieta vylėG	COMPLETE
Poultry Stady - Cocci	101122336	Spray dried algae biomaas powder (rund1/00/17)	030 g	AzCATI	PCS	NatiQuest	07/23/17	05/23/17	NO Cocci 0617 Battery Ziva Final Report	COMPLETE
	29-027	Sprov dried, steared alme signage (see 10/24)	600 a	FLAime	ASS	PSL	45/02/17	07/11/17	report pending	ACTIVE
Senansuk ity it ødy	26.639	Saray dried algae nix wass powder (run05/02/17)	1.50 g	561	PCS	Caubece	45,03/17	05/22/17	1821595-0_COA	COMPLETE
				301	PCS	Creater	05/03/17	05/15/17	1812363-0 COA	COMPLETE
latrition Fratile										COMPLETE
etrition Fiotile eavy Netal Fiotile	75-640	Servy dred algae to was powder (rund5/02/17)	54		100					
latrition Fothe leavy Metal Profile		Servey dried aligne two wasa anawder (1+0+05/02/171 Spray dried aligne two wasa powder (1+0+05/02/171	3 g 75 g	SGI	PCS	Causece	45,03/17	0.91.917	1814004-0_COA	COMPLETE
Latribus Potile Incon Metal Potile Accessibility Pratile	75-640				PCS PCS	Cousece Cousece	45,03,17	081817 0822417	1814804-0_COA 1821593-0_COA	COMPLETE
Seesse (Vyd edy Gerllon Frank Keevy Need Frank Kie weaksy Frank Keevy Need Frank Keevy Need Frank	25-040 29-041	Spray dried algoe no wass powder (run05/02/07)	75 g	SGI						

Production Scale-Up



Vero Beach facility under construction, managed by Arizona Center for Algae Technology and Innovation

ZIVO BIOSCIENCE

Research Overview



Production Scale-Up







Production Scale-Up



A comprehensive program

- $\circ~$ Produce algal biomass and supernatant
- $\circ~$ Metrics and analysis of cultivation methodology
- Process development and documentation
- \circ Reporting

BIOSCIENCE



Production Scale-Up







Research Overview

Production Scale-Up











Research Overview





Genome Sequencing & Strain Development

Expanding the potential for ZIVO algae

- Optimize growth rates, heat tolerance
- $\circ~$ Improve production of secondary metabolites
- o Fully annotated genome provides protection
- o Patentable improvements to strain







Research Overview





Feed Ingredients

Licensing/Marketing Partnership



- $\circ~$ Poultry and swine feed ingredient
- Successful initial testing for poultry
- \circ Additional testing planned
- $\circ~$ Launch upon compliance for poultry





Feed Ingredients

Licensing/Marketing Partnership



 $\circ~$ Poultry and swine feed ingredient

- Successful initial testing for poultry
- o Additional testing planned

Market Opportunity 2380 A category-dominating product in the rapidly growing \$780M phytogenic segment of the global animal feed industry

Production

Anticipating Market Demand

Production capacity for growth in food/feed market verticals

- $\circ~$ Outsource all or most production to established growers
- Provide algal strain and technical support
- o Global grower search underway Ms. Valerie Harmon
- o Global supply chain/QC development Mr. Joseph Miele



Compliance



Generally Recognized As Safe

The Burdock Group continues to manage the compliance process

- Product stability testing at Covance is ongoing, some delays
- $\,\circ\,$ Long-term toxicology study at Product Safety Labs is ongoing
- o Human GRAS completed first, followed by poultry

Transition



From R&D to Production

2018 is the year of transition for ZIVO Bioscience

- o Build a small, agile team to manage transition
- o Leverage all intellectual property for maximum value creation
- $\circ~$ Establish a global supply chain, QC and FSMA compliance

Adam V. Chiasson - Vice President, Operations

Operating executive manages transition from research to production

- Most recently Director of Operations Accuri Cytometers
- o Operational responsibility for entire venture
- Develop lean organization to virtualize product management, marketing, grower relations, technical support

Pharmaceutical Applications

Discovery Stage Deliverables

As developer, ZIVO Bioscience must create a package to license

- Furnish bioactive compound(s) to licensee
- Validate efficacy/safety of bioactive compound(s)
- Target bovine mastitis, canine osteoarthritis, human cholesterol management, in that order





Discovery Stage Principals

ZIVO has assembled a dedicated team of individual researchers, labs and contract research organizations

- $\circ~$ Dr. Paul Wooley assumes senior consulting role
- Dr. Amy Steffek continues as Director of R&D
- Center for Complex Carbohydrate Research, National Center for Natural Product Research, Donald Danforth Plant Science
 Center, Elicityl, Chemily Glycosciences, Boston Institute for Biotechnology

Food/Feed Applications

Algae Biomass and Derivatives as Nutritional Products

ZIVO algae produces a unique blend of NSPs, vitamins and other micronutrients that may be commercialized

- $\circ~$ Focus on productizing algal biomass as food/feed ingredient
- Dewatering, drying, stabilizing



Two Parallel Tracks: Pharma and Nutrition

ZIVO committed to delivering licensable intellectual property to strategic partners in therapeutic and nutritional verticals

- No shortage of opportunity or demand
- o Focus on near-term, low-volume, high margin applications
- Manage production scale-up



R&D Strategy

A Commitment to Flexibility and Response

ZIVO principals have chosen to outsource all R&D and commercialization in order to maintain a high degree of flexibility

- No sacred cows, no agendas whatever works
- o Agnostic to technologies or research methodologies
- $\circ~$ Lean organizational concept



Upcoming Milestones



Expected Announcements

ZIVO managers look forward to announcing over the next several months

- Conclusion of bovine mastitis study, option negotiation
- o GRAS status for human and poultry applications
- Expand global production capacity
- o Market Launch









November 8, 2017 Detroit, Michigan

Q&A Session



2017 Annual Shareholder Meeting

November 8, 2017 Detroit, Michigan

Thank You