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# ZEA Biosciences is merging Data Science with Biology to Disrupt the Pharma Industry

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**"I believe that human life can be healed through plants and be enhanced through technology."  
James Wilson**

**CEOCFO:** *Mr. Wilson, one of the first things I see on your site is "ZEA Bioscience is uprooting medicine." How so?*

**Mr. Wilson:** I will give you a "why, how, what" first. The "why" is that we believe good health is a fundamental right. "How" we do it is that we uproot medicine by growing plants and using our proprietary technology. "What" we produce is medicinal plant products and superior data analytics. That is the "why, how, what."

I also believe that if you make medicine, it should be environmentally friendly. I believe that medicine should be made from natural elements, not synthetic elements. I believe that people should not suffer because medicine is not readily available. More importantly and probably the biggest belief I have, and I have permeated through the company, is that I believe that a human life can be healed through plants and be enhanced through technology. That is what we believe and through those beliefs comes the "why, how, and what."

**CEOCFO:** *What led you to understanding or believing that people can be healed through plants?*

**Mr. Wilson:** If you look at Indian culture, if you look at Asian culture, if you look at South American cultures and tribes, they have been using plants as medicines for thousands and thousands of years. This has been the way Mother Earth has provided and helped us for a number of years. What ZEA has done is we have accelerated that and using a proprietary technology so that we can provide it to the rest of the world.

**CEOCFO:** *What can you tell us about the technology?*

**Mr. Wilson:** The technology is called the CleanGrow Technology™ Platform or the CGT Platform. That platform contains two parts. It contains a physical part and a data part. I will drill down to make it clear. We merge biology with data analytics, so essentially, we grow plants inside an ISO7 clean room that has been modified and then we collect over thirty parameters on the growth of that plant to optimize its growth cycle.

**CEOCFO:** *What might some of those thirty points be; something that might surprise people you are able to measure or that you recognize is important to measure?*

**Mr. Wilson:** Airflow speed over the plant, amount of carbon dioxide measured by parts per million over our plants, the amount of electricity running through the root systems of a plant. I think what surprises people is that they think that it is just the lighting, the temperature, humidity, pH, but there are so many more variables that affect plant growth.

More importantly, when you are talking about enhancing or optimizing as we call it, we are optimizing that plant growth to get to an economically feasible product. Then you are optimizing, not just those couple of variables, but a whole slew of secondary variables that make an enormous impact on the product you are producing for your customer.

**CEOFCO:** *How have you decided what plants to study? What do you look at from the history of a plant? What makes them a good candidate for what you are doing?*

**Mr. Wilson:** We have a process we use called CEPS, called Conceptualization Engineering Production and Scale. I really cannot go into our selection process because that is part of our proprietary technology. I can say that at some times we choose plants, but most of the time the customer has already identified a plant with a certain enzyme, molecule or protein in it that they would like us to grow for them.

**CEOFCO:** *You test a plant, you look at the different variables, you come up with what might be the best growing scenario. Then what? Is it always for a client? Do you do some research on your own? What is the business mix?*

**Mr. Wilson:** It is not just the optimum growing cycle. You are not just optimizing growing a plant. You are optimizing something inside the plant that is the ingredient for some medicinal use. For example, we have a number of research partnerships right now. One of them is with a plant called Tulsi Basil that I can publicly talk about. Tulsi Basil, which is similar to the basil you eat, it contains an active ingredient called Eugenol. Eugenol can be used to lower diabetes conditions, can lower blood pressure and is good for hypertension.

That plant has been used in India for over five thousand years. In fact, how we discovered it is that the individuals in India do not have as high a blood pressure level, they do not have hypertension, they do not have diabetes. When we started looking into it, we found out that Northern India has a goddess called the Tulsi goddess and every Indian family has a basil plant sitting in front of their house. They pick that plant and they eat it every day.

**CEOFCO:** *What is the feeling in the medical and scientific communities about your approach and your basic philosophy? Are people onboard? Where does it stand today?*

**Mr. Wilson:** Right now, plant-based medicines are the biggest market of open white space out there. There are three reasons why plant-based medicines are so attractive in the world today. One, the lower cost of production by a factor of ten. Two, the lower capital cost required using our technology by almost a factor of ten and three, that the ability to scale with plant-based medicines verses any other type of synthetic or other types of biologics is much faster.

Plant-based medicines are also good for our environment. The amount of environmental damage that we do with synthetic based medicines is horrible with the leftover effects. Plant-based medicines are renewable, even in our technology environment. This is how we are uprooting medicine, that we can deliver the same medicines as a synthetically based medicine at one tenth the cost, at one tenth the production cost, one tenth the capital cost to build the facility, they are better for the environment and more importantly, they are better for human beings in general. This gives us access. This goes back to what I believe in; that good health is a fundamental right and that everyone in the world should have access to that it. Therefore, every developing country that cannot afford medicines now that we in the U.S. take for granted, suddenly, we would have the ability to open up to that.

**CEOFCO:** *How do you reach out to let people know what you are doing, what you are feeling, what you can help them with?*

**Mr. Wilson:** It is interesting because our website has been our main tool. LinkedIn has been extremely important to us because most of the people that follow us and most of the people in our network are in that space to begin with. We also reach out to universities, to research institutions and explain what we can do. The truth is we've almost always had a return phone call, where we introduce ourselves to a university and explain what we do. We have had an extremely good positive response. That is because we offer the research community the ability to take a lot of research that has been developed over the last thirty years and bring it to commercialization. Up to now, because they have not had a platform to scale their research.

**CEOFCO:** *Would you tell us about the milestone of a variance average of 7.2 percent?*

**Mr. Wilson:** Yes. We set a benchmark of 20% in our plants. In greenhouses, the average is about 30-40% from plant to plant. In open air crop production, it can vary much higher than that. That we can drive down to 7.2% variance, meaning

that plant number one and plant number one million in a reproducible trial has a 7.2% variance elementally is unheard of in our space.

**CEOCFO: *Why is ZEA Biosciences so important?***

**Mr. Wilson:** I will break it down into a couple of groups. For investors, I have said this before; this is a four hundred-billion-dollar market right now. It is all based on mammalian biologics. They are extremely expensive. For investors, I would say that I can give you a technology platform that takes that four hundred-billion-dollar industry and can deliver you that industry at one tenth the cost of production; one tenth the capital expenditures, and we are the only ones that do it. We are the thought leaders in plant optimization. We are the only ones that collect millions of data points like this and we have successfully done it over and over again.

For the investors, I say every day that every decision we do in this company is a billion-dollar decision. Every plant we are growing is a plant that is going out to a medicine market that is a minimum billion-dollar market is in this world. Therefore, everything I do in this company has a billion-dollar impact. That is from the investor standpoint.

On the health standpoint and from the general population, the world is creating so many drugs that have so many side effects, that at the end of the day, if we cannot develop a technology that takes our entire healthcare system and drop it down cost-wise by a tenth, we will never be able to give the world have access to affordable medicine. We want to make the world a better place for human beings. That is why we say we exist is to uproot medicine; uproot medicine so everyone has access to it.