ceocfointerviews.com

Issue: August 22, 2016

CEOCFO Magazine

Bringing Molecular Diagnostics to the Food and Beverage Industry in a very Economical Fashion

Dr. Gregory Galvin
Chmn, President & CEO

Rheonix Inc.
www.rheonix.com

Contact:
Gregory Galvin
1-607-257-1242
ggalvin@rheonix.com

Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine

"We have an instrument that they can just stick in a closet, anyone can run it and now they have this sophisticated testing capability available to them, which historically they would not have been able to access."
- Dr. Gregory Galvin

CEOCFO: ***Mr. Galvin, what is the vision behind Rheonix?***
Mr. Galvin: Our vision is to bring molecular diagnostics to the larger marketplace by making it fully automated and very user friendly and inexpensive.

CEOCFO: ***What are the challenges in those areas?***
Mr. Galvin: Cost is the biggest challenge and trying to reduce that to the level that makes molecular diagnostics widely accessible, which it is not today. The automation is somewhat challenging. It is trying to balance flexibility into a wide range of capabilities and different types of samples and assays while still trying to keep the cost down. The user friendliness we have down pretty well. Right now our system is that a technician loads the samples, presses the go button and that is the last interaction a person needs to have with the instrument until the answer comes out.

CEOCFO: ***What makes the testing expensive?***
Mr. Galvin: Conventional molecular diagnostics requires highly skilled technicians, a whole bunch of laboratory instruments and a dedicated laboratory environment to prevent contamination. You have capital costs, labor costs and then you have the cost of the chemicals, the reagents involved. We dramatically reduce the labor cost. We take out the environmental cost. The instrument itself can be contained in any environment, it does not have to be a special laboratory environment. The reagent and chemical costs are still there. We use smaller volumes, which helps bring them down but they are still a component of the cost. For us, as an early stage company, we are not yet at a scale where we can use purchasing power to bring down the cost of the components that go into our instrument although hopefully we will attain that in the next few years.

CEOCFO: ***What are you able to test for now? What have you developed so far?***
Mr. Galvin: We have done a wide range of different things. We have done sexually transmitted infections, genetic analysis for looking at things like predisposition to Warfarin sensitivity. We have done food and beverage testing, we detect salmonella in food and beer spoilage organisms in beer. We have done library preparation for next generation sequencing. The platform is extremely versatile.

CEOCFO: ***How do you decide what you are looking at or is it based on who might come to you and ask for help?***
Mr. Galvin: Both. We have done our own market research and have our own ideas of where we want to go with it but some of what we have done has been responsive to customers or potential customers coming to us and asking if we can do something for them.

CEOCFO: ***Where do you see the most traction? Do you see food and beverage as a bigger area than medical or is it item by item?***
Mr. Galvin: It is a good question and one that we are in the heat of debating right now. The company originally started with the focus on human clinical medicine. I still believe that is the largest potential market for the technology but we have extremely good traction in the food and beverage arena. Our first sale was into that arena. I see that as being a very underserved marketplace in which we will do extremely well. We obviously do not have the regulatory hurdles to get into the food and beverage, at least not to the extent you have in human medicine.

CEOCOF: ***Would a company send the test to you or would this be able to be done at local labs if they have the right equipment?***
Mr. Galvin: Our business is to sell or rent the instrument and the consumables that go into the test. The customer would be performing the test. We are not a service laboratory.

CEOCFO: ***Is there training involved for the person doing the testing?***
Mr. Galvin: It is pretty minimal. Obviously we have to show them how to load the samples, where to put the consumables and what the user interface on the instrument is and how they navigate it but it is pretty simplistic.

CEOCFO: ***You recently launched the technology for rapid detection of beer spoilers. Would you tell us about that?***
Mr. Galvin: This came about from us doing some market research and identifying that the beer industry is very concerned about certain bacteria that will spoil beer, which either results in bad tasting beer or bottles bursting and it can lead to recalls. We are in consultation with some industry experts and a brewery not too far from where we are to identify which organisms as well as certain genetic mutations of those organisms that actually allow them to survive in beer. I did not realize beer is a very inhospitable environment for microorganisms, but some have mutated to be able to survive in that environment. We then developed a test that would identify the presence or absence of these particular sets of organisms and these particular genetic mutations. The brewer can take a sample of the beer anywhere during the process from start to finish and run it through our instrument and determine whether they have a contamination or not.

CEOCFO: ***How do you account for some multiple pieces to the contamination? Does it matter?***
Mr. Galvin: The real issue here is the one I just described. There are these pathogens that can be in beer but only certain genetic variants of them will result in a viable pathogen which would lead to contamination. That is one of the deficiencies of their present testing. The typical methodology today is they take a sample of beer, then grow cultures in Petri dishes and one takes five to seven days. By the time they get the answer, the beer has already moved through the manufacturing process. Just the fact that this organism is present does not mean that it is going to cause contamination. You have to do this genetic analysis on the organism to see if it is of the variant that can live in beer that could then lead to contamination. We do both. Our output is yes, you have lactobacillus present and yes, this is the hops resistant genetic variant of lactobacillus, therefore you have a problem. We do it in five hours instead of five days.

CEOCFO: ***What about salmonella? Are you able to detect the differences among the various strains?***
Mr. Galvin: Yes. The output of our instrument is a small array of dots, each of which can be labeled to detecting a particular DNA sequence. We can output 22 different answers per sample. In the case of salmonella, it will be some number of different strains for each of those dots.

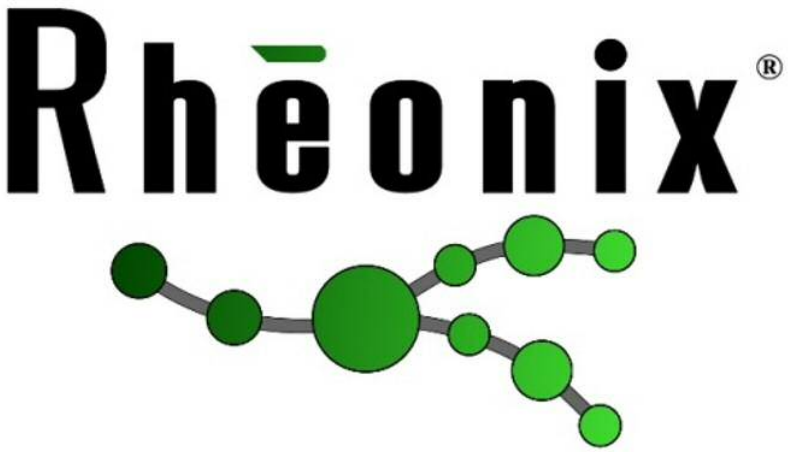
CEOCFO: ***How do you get a foot in the door to explain what you have; how worthwhile it is with various companies?***
Mr. Galvin: I see it as a very traditional sales process. It is marketing, advertising, trade shows. We were at a food trade show last week and we are going to a beer trade show next week. It is cold calling, salesmen knocking on doors. There is no magic to it, just old fashioned hard work.

CEOCFO: ***How often might something such as a beer have a problem?***
Mr. Galvin: I cannot say what the frequency is but I can say that a medium sized brewery is doing multiple tests per day, ending up in thousands of tests per year.

CEOCFO: ***Are you funded for the push you would like to make or are you seeking partnerships of investments?***
Mr. Galvin: Yes to all of the above.

CEOCFO: ***What has been the interest from the investment community?***
Mr. Galvin: It has been very good. We have a very loyal and supportive group of investors and interest from other parties to join in on that process.

CEOCFO: ***Why is Rheonix important?***
Mr. Galvin: We have a very differentiated instrument platform that allows us to bring this sophisticated testing to the marketplace in a very economical fashion. I think the beer testing is a great example of that. The typical brewery does not have the resources to support a molecular diagnostics laboratory and the staffing and technology that would go into that. We have an instrument that they can just stick in a closet, anyone can run it and now they have this sophisticated testing capability available to them, which historically they would not have been able to access.


Rheonix®