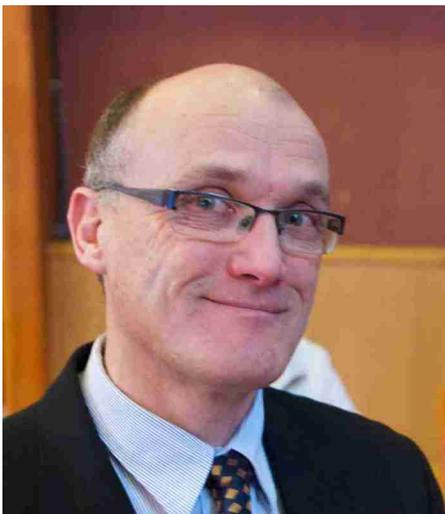


Bringing to Market their Domino Diagnostic Platform that Tests for Infections Diseases and Genomic Markers, Aquila Diagnostics Systems Inc. has a Unique Package that can do Multiple Tests at the Point-of-Care at a very Low Cost

**Healthcare
Diagnostics
(Private)**

**Aquila Diagnostics Systems Inc.
9207 117 Street
Edmonton, Alberta
Canada T6G 1S3
780-938-9207
www.aquiladiagnostics.com**



**David Alton
CEO**

BIO:

David Alton is the President and co-founder of Aquila Diagnostic Systems. He holds an MBA from the University of Alberta. David's career has spanned the public and private sectors. He was a senior manager in the Federal Government and later moved to the University of Alberta where he was Director of Planning for the National Institute for Nanotechnology and the Director of Business Development for the Alberta Cancer Diagnostic Consortium. David has extensive experience in the micro and

nanotechnology sector as a consultant and as a founder of four spin-off technology companies from the University of Alberta.

Company Profile:

Aquila Diagnostic Systems Inc. (Aquila) is an early stage life sciences company focused on bringing new and revolutionary point-of-care diagnostic testing for infectious diseases and genomic markers to the medical sector and livestock industry. Aquila was established in 2009 to commercialize the *Domino* diagnostic platform developed at the University of Alberta.

**Interview conducted by:
Lynn Fosse, Senior Editor**

CEOCFO: Mr. Alton, would you tell us about Aquila?

Mr. Alton: Aquila Diagnostics Systems is a spin-off company from the University of Alberta, focusing on the point-of-care diagnostics for the human health and agricultural centers.

CEOCFO: What are you testing for and is that testing done at point-of-care?

Mr. Alton: Our system tests for the presence of the DNA of pathogens and viruses in blood and other tissue types. We can also test for genomic targets in the host. Our instrument is a small device, the size of a toaster. Each test uses a disposable microfluidic chip, which is fabricated from plastic. The differentiator for our product from other point-of-care applications, is that we can do multi parameter tests - meaning we can do multiple tests on the same chip; that might be testing multiple samples or doing multiple tests on one sample.

The Domino is different from other point-of-care devices in that we can as many as twenty tests on one chip. This is done at the point-of-care, with results to a practitioner in less than an hour.

CEOCFO: What is it that you figured out which others have not?

Mr. Alton: Our system does a test called PCR which is something currently done mostly in the central lab. PCR stands for polymerase chain reaction which is a process used for highly sensitive genetic testing. Our differentiator is that we can do PCR in a dry form rather than in a liquid reaction. Our process actually enters a liquid phase later in the reaction when the sample being tested hydrates the reaction. We have dried out the required PCR primers and reagents into what we call a gel. Because our gel is dried we do not have to worry about refrigeration or transport issues. It has a long shelf life.

CEOCFO: You have figured out how to do the drying process!

Mr. Alton: Yes. That is the core to what we do.

CEOCFO: Assuming that both the human health and animal health communities are looking for better methods, is there awareness in the industry or is it still under the radar screen?

Mr. Alton: We are still under the radar - we have some traction in the human health area in infectious diseases and cancer, and in the last year or so, we have had good reception from the livestock and veterinarian community. Many vets are working in large feed lots where there are problems tracking bovine respiratory dis-

eases. There is also a similar market involved with testing for swine viruses. We are planning demonstration trials for malaria detection and swine viruses in the next six months.

CEOCFO: You have worked with spin-off technologies in the past, what have you learned about the process that you bring to the table?

Mr. Alton: Over the last ten years I have been involved with five other technology companies in Alberta as a founder or shareholder. Along the way I have learned a lot that I am bringing to this company. I think what is different with Aquila's Domino system, is that while it is coming out of the university, and it is interesting technology, we have had people come to us and ask if our technology would help them, rather than us having to push the technology out. This happened with the feed lot business. We have also had inquiries asking us if we can detect mites in bee colonies. We have had people in the Canola industry, which is very big in Alberta and bigger than wheat; ask us about detecting blackleg fungus. Another example is an inquiry from someone in New Zealand looking at detecting viruses there in cultivated oyster beds. They are interested. Who would have thought? Because the Domino is a platform technology, which can detect DNA from many types of organisms, there is a multitude of potential applications in many industries.

CEOCFO: When someone contacts you, what would be the process to develop a test for any particular disease?

Mr. Alton: We have to adapt our system for the new target, which is a matter of getting our lab people to adapt and tweak the primers to detect that target. Then we would build that into our specialized chip which is run through our detection instrument.

CEOCFO: What is happening day-to-day at Aquila?

Mr. Alton: We are trying to find money and trying to promote the company. We have folks in the lab who are working on chip and application development. We also have an

We have a unique package that can do multiple tests at the point of care at a very low cost. - David Alton

engineering team working on the design of our go-to-market instrument and chip.

CEOCFO: How do you encourage funding at a time when it is very difficult?

Mr. Alton: Raising funding is always difficult for a start up. What is maybe different about Aquila is that we are located in Alberta, which is a real hot-house economy for North America. The unemployment rate in Alberta is low and the investment dollars coming in are huge. But investors are not looking for biotech or med tech start-ups - the money is pouring into oil sands and all sorts of interesting and

lucrative spinoff businesses. It is also difficult to hire and retain engineers and scientists in this environment. For us It is about trying to get some attention in that environment. We work closely with the university which is helpful and we go to conferences and of course we are talking to investors and potential partners outside Alberta.

CEOCFO: Our readers are primarily investors; why should they pay attention?

Mr. Alton: We are well advanced technologically. Our technology has patents pending and is proven in the laboratory and has been published in research journals. Although we are

not in the market now, we have gone a long way on limited dollars and with little dilution. We have a platform technology that could be used for literally hundred of different tests in many industry sectors. There are other companies that do point-of-care DNA testing but they do not have a low cost solution like ours. We think we have a unique package that can do multiple tests at the point of care at a very low cost. Injection molding is going to give us chips that are going to cost a few dollars. Our detection instrument is the size of a toaster and is made with a few thousand dollars worth of off the shelf parts. The amount of reagents we use is miniscule on a per chip basis and our disposable chips are cheap.



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