

EVOLUTION From Innovation to Industry

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IGNITE Company Profile: Circle Cardiovascular Imaging IGNITE Company, Image of Success



IGNITE

Circle Cardiovascular Imaging Inc. (Circle), a company that develops software for the cardiac imaging industry, and one of UTI's first IGNITE companies, experienced an exciting start to its operations this past year.

One of the key milestones achieved was the launch of commercial sales of its cmr^{42} software throughout Canada, the United States and Europe. This followed regulatory approvals received in November, 2008 from the United States Food and Drug Administration (FDA), Health Canada and the European Union.

"These regulatory approvals are significant milestones that position the company ahead of its development plan," says Greg Ogrodnick, CEO of Circle and UTI's Libin Executive-in-Residence. "We are now able to completely service cardiology specialists in the advancement of patient care through enhanced diagnosis."

In addition to receiving regulatory approvals, Circle also achieved other significant accomplishments in its first year, including developing over 45 beta sites in 12 countries that have been validating the software, raising over \$1.4 million from independent capital investors, hiring over 12 employees, and establishing a corporate office.

Several factors contributed to Circle's successful year, including the knowledge and experience of UTI's IGNITE team, which brought together business expertise and innovative research to create an investment-grade company. It also has a talented and qualified management team that includes Greg Ogrodnick, an experienced entrepreneur who has company creation experience and has worked at leading healthcare and biotech companies, together with Dr. Matthias Friedrich, one of the world's leading CMR (Cardiac Magnetic Resonance) specialists.

Circle officially launched its cmr^{42} software at the SCMR (Society for Cardiovascular Magnetic Resonance) conference in Orlando in January 2009, and has already secured several commercial customers.

For further information on Circle, visit www.circlecvi.com or call 403-338-1870.



Ingenuity Enterprise

Internships Nurture Entrepreneurial Spirit in Alberta's Rising Stars

As the global economy fluctuates, it's more important than ever to diversify Alberta's economy and create new opportunities in the technology sector.

Encouraging talented graduates to consider entrepreneurship – and providing opportunities to prepare them – is crucial to this process.

One way University Technologies International (UTI), is helping to develop entrepreneurial talent is through the Student Entrepreneur Development Program supported by Ingenuity Enterprise – a partnership between TEC Edmonton, UTI and funding body Alberta Ingenuity – that began in 2006.

"The program provides a lot of practical experience from being involved in company development from the due diligence stage to the nitty-gritty of start-up activity," explains Helen Shannon, who oversees UTI's internship program.

As an intern at UTI, MBA graduate Andres Cortes participated in the development of business plans and marketing strategies for projects with technologies at all stages of development. "Some projects were at very

early-stages; others were ready for external investment" he says.

Cortes left the internship with a good working knowledge of the technology commercialization process – particularly in terms of patents and the regulatory process.

These days, Cortes is senior marketing specialist at Smart Technologies, a Calgary company known for its interactive whiteboard product. He says his internship experience has prepared him well for his current role, which requires both a broad and deep knowledge of commercialization. It will be of great benefit if he eventually decides to go the entrepreneurship route.

"If at some point in the future, I decide to become an entrepreneur in Alberta, I'm sure my learnings from activities performed at UTI will be invaluable," he says.

For more information about Ingenuity Enterprise or the Student Entrepreneur Development Program contact Helen Shannon at shannonh@uti.ca

Technology in Profile: New Products and Processes Will Help Move Stem Cell Research from the Lab to the Clinic

One of the current hurdles to taking stem cell research from the halls of academia to clinical corridors is that the media used to culture stem cells contains blood serum, the composition of which is largely unknown. The use of serum represents a major obstacle for the clinical implementation of adult stem cell related therapies as it is poorly defined (varies in quality and composition), may contain prions, viral particles, or zoonotic agents, and may elicit severe immune reactions in patients undergoing stem cell therapy. Due to safety and regulatory requirements around the clinical implementation of cell therapies, there is a need for the development of a serum-free media which is well-defined, free of animal components, and performs well with a broad range of cell lines.

This is where the work of Dr. Leo Behie, Canada Research Chair in Biomedical and Biochemical Engineering and Director for the University of Calgary's Pharmaceutical Production Research Facility (PPRF) comes in.

Dr. Behie and his team have developed new chemically-defined, serum-free media, as well as protocols for expanding large numbers of adult stem cells in computer-controlled bioreactors. These innovations can be used to expand multiple adult stem cell lines, including brain cells (i.e. neural stem cells) that could potentially treat Parkinson's disease, and Huntington's disease and mesenchymal stem cells, which may be used in bone and pancreatic cell-based therapies. As the composition of these media is known, the risk of contamination is eliminated. Results of Dr. Behie's work have shown it to work as well, if not better than current media. With lab results and validations complete, Dr. Behie and University Technologies International are looking to partner with a biotechnology company to commercialize these groundbreaking tools.

For further information on this technology, please contact: Joel Goertz, Project Manager, Medical & Life Sciences at goertz@uti.ca

SAIP Network:

SAIP Network Welcomes Two New Members:

- Banff Centre
- Lethbridge College

Upcoming Events

NSERC Federal Innovation Workshop:

Thursday, May 7, 2009

8:30 a.m. – 1:00 p.m.

Cassio Room, MacEwan Conference Centre,
University of Calgary

Attendance is free, however,
registration is required.

RSVP by April 30, 2009 to:

events@uti.ca or 403-774-4298.



In the Spotlight

Dr. Wee Yong

His travels between his homeland of Malaysia and Canada illustrate that Dr. Wee Yong is no stranger to long journeys. Similarly, his work on multiple sclerosis has been a long, but rewarding journey; a journey he hopes will result in alternative treatments for individuals with multiple sclerosis – a debilitating autoimmune disease, where the immune system attacks the central nervous system.

Dr. Yong knew at a very early age he had an interest in medical science. First, he completed his undergraduate degree in England and then finished a PhD at the University of British Columbia. He then worked at the Montreal Neurological Institute at McGill University before coming to the University of Calgary, where he has now worked for over a decade as a Neuroscientist in the Faculty of Medicine. His primary work involves studying how the immune system interacts with other systems in the body—specifically, how immune cells become activated and how they make their way to the central nervous system. Dr. Yong not only spends his time in the lab, he also contributes numerous hours to the MS Society of Canada – travelling across provinces delivering talks to patients about the progress of MS research. In fact, the MS Society provided him with his first grant.

Dr. Yong and his team have conducted clinical trials which have had encouraging results and he is currently working with UTI to develop an intellectual property protection and commercialization strategy for an innovation that relates to reducing the movement of immune cells into the nervous system (the initial patent was financed by the Hotchkiss Brain Institute). This new therapy has the potential to decrease the number of relapses, and stop any further degeneration of the nervous system for MS patients.

So, what has been the most rewarding part of his career so far? “There is not one specific example I can provide,” says Dr. Yong, “but I can say there have been more exciting days than not, and at any one time, there is something going well. I enjoy several different aspects of my work including seeing trainees I have worked with continue to make contributions in the field of MS,

“This new therapy has the potential to decrease the number of relapses, and stop any further degeneration of the nervous system for MS patients.”

watching the work generated in the lab go to clinical trials, and being a part of a group that is advancing knowledge on an international level.”

Dr. Yong continues his MS research journey and hopes to eventually bring news of new hope to MS patients.

For further information on this technology please contact Theo Eystathioy, Technology Analyst, Medical & Life Sciences at eystathioy@uti.ca or 403-774-4295.



Dr. Wee Yong

Some patents issued through UTI this past year:

US 7,365,140 – Transition Metal Carbene Complexes Containing a Cationic Substituent as Catalysts of Olefin Metathesis Reactions: Work by Dr. Warren Piers, Professor in the Faculty of Science at the University of Calgary

US 7,407,583 – In-Situ Nitrification and Denitrification: Work by Dr. Angus Chu independent inventor and Professor in the Schulich School of Engineering at the University of Calgary.

Facts about Patents

A patent can help its owner prevent others from making, using or selling an invention they have developed. Thus the owner or rights holder of a patent can derive a competitive advantage in the marketplace. A patent generally has to be filed before a public disclosure of the invention and it commonly takes several years before it is actually issued and is enforceable.

For more information on patents visit UTI's website at:
<http://www.uti.ca/research/resources>

Corporate Social Responsibility Activities and Annual Speaker Series Summary

Bringing Innovation to Life: UTI's 3rd Annual Speaker Series

UTI Team

We would like to hear from you. Please contact any of our staff with your inquiries, thoughts or insights.

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This past fall, UTI welcomed over 200 guests and seven presenters with expertise in technology commercialization to its 2008 Speaker Series at the University of Calgary. The engaging and informative four-part series focused on the impact of bringing innovative technologies to the market and creating one's own success story.

The opening session featured David Gulley, Interim Director for the Office of Technology Management at the University of Illinois at Chicago; and Janet Scholz, Managing Director for ACCT Canada, who offered a comparison of technology transfer offices across Canada and the United States.

Guests at the second session heard Glenn McMurray and Michelle Rempel of the UoFC's Research Services Office discuss the changes taking place in research funding, and how to optimize one's chance of receiving funding.

UTI in the Community

On October 10, UTI partnered with CTI for the United Way's Days of Caring. Fifteen UTI employees, along with CTI employees, spent the day painting a community group home for Aspen Family Homes. Aspen is a Calgary family services agency that helps those in need overcome challenges and create better, more rewarding lives. They operate four community group homes in Calgary, which provide caring, homelike environments for youths.

On October 15, UTI employees rolled up their sleeves and gave blood at the University of Calgary's mobile blood donor clinic.

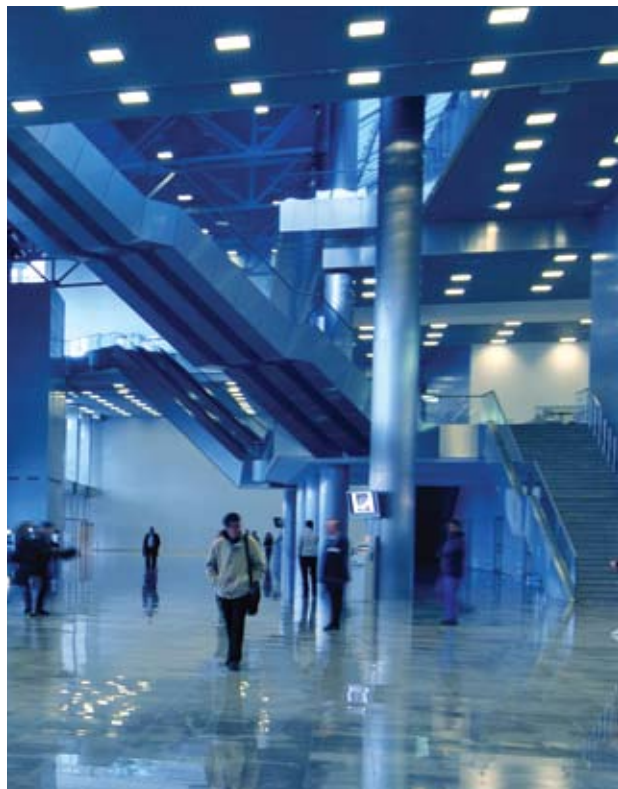
On January 26, UTI spent the afternoon at the Calgary Food Bank's warehouse. Fifteen employees contributed their time to help sort food donations, pack emergency food hampers and package bulk food items.

UTI strives to make a positive difference in the community, and encourages its employees to volunteer their time to valuable causes.

UTI's Sabina Bruehlmann and Peter Santosham joined the third session to present case studies that illustrated how UTI selects an invention's best path to market.

The final session welcomed Kirsten Leute, Senior Licensing Associate for the Office of Technology Licensing at Stanford University and VP Communications for AUTM (Association of University Technology Managers), who delivered an insightful look at how research and technology transfer can benefit the community and improve quality of life.

UTI's Speaker Series helps promote understanding of technology transfer and commercialization and the role UTI plays in this process. This year, it was sponsored, in part, by the SAIP network. UTI would like to thank everyone involved in making its 2008 Speaker Series a success.



UNIVERSITY TECHNOLOGIES
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Bringing Innovation to Life.