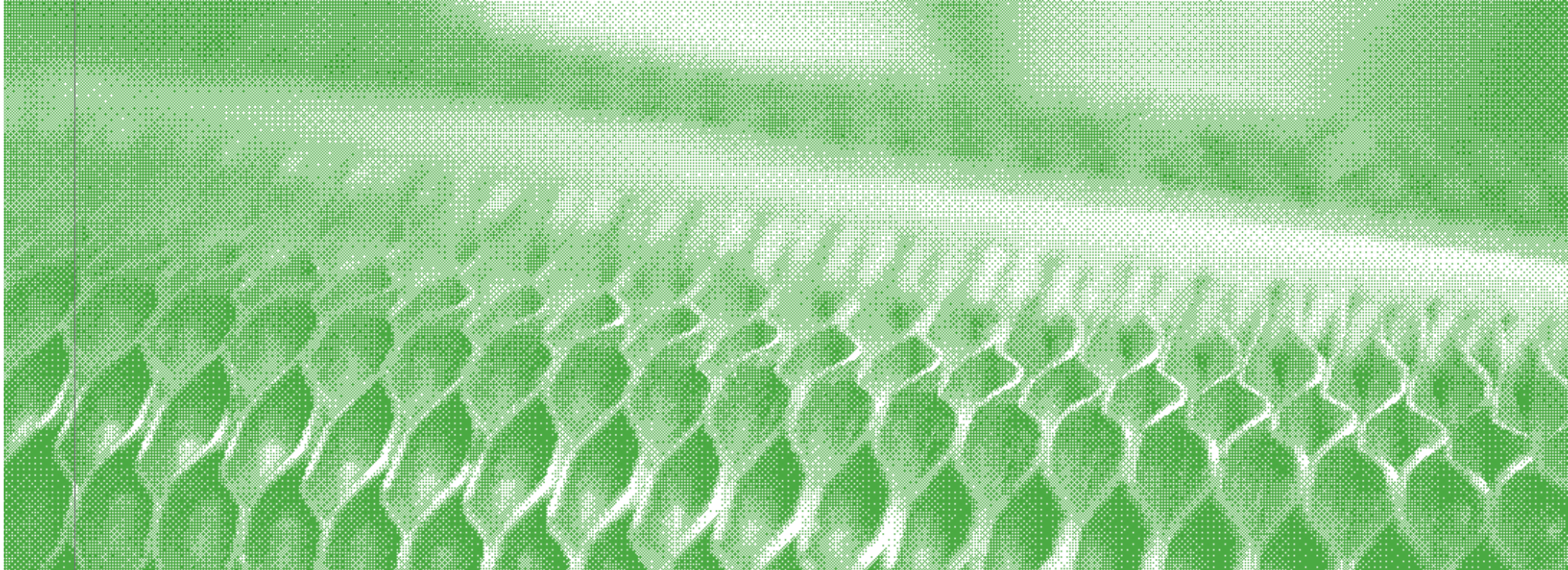




# DISCOVER TEC EDMONTON ANNUAL REPORT 2008



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04

Propelling innovations into the marketplace, capturing more of the value from research done in our region for our region, is no simple feat. It takes a team of dedicated 'out-of-the-box' thinkers with expertise to transform a 'Report of Invention' into a business opportunity. This is the TEC advantage, our team.

In the past year, TEC Edmonton has worked alongside Researchers and Technopreneurs to negotiate licensing deals, create start-ups, and grow existing enterprises. From patent exploration to business incubation, the increased uptake on our services has translated into increased commercialization activities.

We realize it takes a community to raise a start-up. With that sentiment in mind, TEC Edmonton's team reached beyond our incubator and signed two significant Memoranda of Understanding (MOU). The first was a MOU with the Alberta Ingenuity Centre for Machine Learning (AICML) which stipulates that TEC Edmonton will be their exclusive technology transfer agent. This MOU is a testament to our TEC Transfer team and their expertise in IP protection.

The second MOU was amongst the region's five incubators – novaNAIT, Northern Alberta Business Incubator (NABI), EEDC's Advanced Technology Centre, the National Institute for Nanotechnology (NINT) and TEC Edmonton, whereby we agreed to work efficiently to utilize limited local incubator resources. By leveraging the alliances expertise, services and programs, start-ups in the region will find their 'best fit'.

Looking back there were some trials with assisting our clients in securing financing given the economic climate; however, despite the economic downturn, TEC Edmonton still had reasons to celebrate. We hosted two major events, the first to honor the University of Alberta's centennial year and the second to announce the formation of the Regional Alliance.

From nanotechnology to green technologies, from medical devices to software applications, Edmonton's inventors are Alberta's new-age pioneers. Through the WISEST Innovation Contest and the TEC VenturePrize Business Plan Competition, we caught a glimpse of the ingenuity coming down the pipeline. It's encouraging to see students apply business acumen to their academic undertakings.

I encourage you to explore the TEC advantage and discover our activities in the 2008 TEC Annual Report.



**Dr. David Cox**  
Chief Executive Officer



did you know TEC Edmonton is a joint venture?

06

In 2006, Edmonton City Council and the University of Alberta ratified TEC Edmonton as a joint venture and the Board of Directors was established.

## Did you know TEC Edmonton is the exclusive technology transfer agent for the University of Alberta?

“TEC Edmonton helps the University of Alberta’s researchers move technology from the bench to benefit the larger society, for example, through commercialization and spin-off companies.” **Dr. Lorne Babiuk**, VP Research, University of Alberta and Chair of TEC Edmonton’s Board of Directors

## Did you know TEC Edmonton helps local inventors and entrepreneurs with proven technologies?

“This unique not-for-profit company attracts bright, innovative inventors and entrepreneurs as well as start-up technology companies and investors to Edmonton’s evolving and diversifying economy.” **Ron Gilbertson**, President and CEO of Edmonton Economic Development Corporation, and Vice Chair of TEC Edmonton’s Board of Directors

messages from the Board Chair and Vice Chair

On community...

TEC Edmonton is another example of how the University of Alberta and the community are joining forces to make Edmonton an economic hub.

As we work together to promote the long-term growth and sustainability of Greater Edmonton, advanced technologies will play an integral role in moving the region forward in being recognized as one of the top mid-sized cities in the world.

On value...

As a matchmaker between small (or large) companies with specific issues and University of Alberta partners, TEC Edmonton finds resolutions to those issues.

By providing invaluable support to early-stage technology companies so they can grow and potentially create jobs for the Greater Edmonton region.

On expertise...

The leadership and specialized assistance that TEC Edmonton staff offers is a strategic investment in our city’s future.

TEC Edmonton’s Executives-in-Residence program helps researchers understand how they can become involved in commercialization.

On partnership...

EEDC remains deeply committed to working closely with TEC Edmonton and the University of Alberta to ensure our region continues to derive a competitive edge in the development of innovative technologies.

Last year’s Centenary of the University of Alberta was an example of the tremendous partnership that has developed between the City of Edmonton and the University of Alberta. TEC Edmonton is another example of the way that we are breaking down barriers between the City and the University.



Dr. Lorne Babiuk



Ron Gilbertson





Guy Meyer, CEO of Optilume Engineered Light Corp. and Shaheel Hooda, Libin EIR for TEC Edmonton

## discovering invention

### City of Edmonton Lights Up on Innovation

Optilume Engineered Light Corporation is a local company making a difference with its goal to light up the streets of Edmonton. Working with TEC Edmonton's Libin Executive-in-Residence (EIR), Shaheel Hooda, Optilume has struck up a pilot project with the City of Edmonton and EPCOR. Their L.E.D. street lights are now shining bright.

"New technology companies need 'quick wins' to generate revenue and develop a track record, which will in turn help them to expand in their niches," says Hooda. "This partnership with the City and EPCOR makes this possible."

TEC Edmonton's EIR program pairs technology start-ups with experienced business people who know the in's and out's of getting a venture off the ground.

"The intent is that because you went through it before, hopefully you can avoid some of the mistakes from those gigs and share some tips and tricks with new entrepreneurs so that they don't make the same ones," Hooda explains.

Optilume's product lends itself to all kinds of industries and applications. The LED lights last practically forever, reduce maintenance costs dramatically and cause minimal environmental impact. "Our technology provides an illumination source with zero environmental contaminants, like lead and mercury. It's also 100% recyclable," explains Guy Meyer, CEO of Optilume.

Over the course of just a couple of months, TEC Edmonton's EIR helped re-write Optilume's business plan, create a five-year revenue plan and financial projections, coached the company's management in understanding the challenges related to the adoption of new technologies, and helped the company determine whether its technology could be patented. Through TEC Edmonton's Company Development team, Hooda also connected the company with potential angel investors and helped review other sources of funding, like grants.

### Celebrating a Century of Discovery

Looking back over the past 100 years, technology has changed our lives. On October 23, 2008 TEC Edmonton celebrated the University of Alberta's Centennial with an event highlighting discoveries and the commercialization of those discoveries.

The 2nd Edition of *Patent Portraits – A Celebration of Invention and Commercialization*, was premiered at the event. The book showcased commercialization stories, highlighting our region's creative minds and entrepreneurial spirit.



# Do you know who supports TEC Edmonton?

City of Edmonton, University of Alberta,  
Alberta Advanced Education and Technology,  
& Western Economic Diversification Canada

## discovering ingenuity

Alberta Ingenuity, TEC Edmonton and University Technologies International (UTI) joined forces to create the Ingenuity Enterprise program to stimulate entrepreneurial talent in Alberta. This province-wide initiative focuses on the commercialization side of research and translating new discoveries into business opportunities.

“A typical Alberta approach is that the south and the northern regions of the province compete on almost everything,” says Alberta Ingenuity President and CEO Dr. Peter Hackett, who was struck by this when he moved to Alberta four years ago.

While it may be well and good to fight over hockey, economic diversification requires successful collaboration across communities.

“The community in Calgary is very different from the community in Edmonton. Folks are skilled at different things, and motivated by different things,” says David Cox, CEO of TEC Edmonton. “The feeling is very different. When you mix them together, you get something that’s better than either – that’s what we’re trying to do here.”

Though only a few years old, Ingenuity Enterprise has successfully fostered creative collaborations, producing more effective services for new tech firms.

“You can already see it happening in the companies that are being shepherded through and mentored. They’re getting capital. You can see deals being done and companies growing,” Cox says.

Ingenuity Enterprise has also led to the creation of new services, like the TEC Student Entrepreneurship Program (SEP).

## entrepreneurial ‘intern’ spirit

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 for it, is crucial.

SEP connects student inventors with seasoned entrepreneurs who act as mentors, along with MBA students interested in commercializing technology. The cornerstone of the program is a paid internship that allows MBA students to work with new ventures at all stages of development.

“I like to think the program allows students to feel more comfortable going down that entrepreneurial path,” says Nancy Shepart, TEC Edmonton’s SEP Manager.

Eric Petz worked with many emerging technology ventures during his internship at TEC Edmonton. For the most part, his work entailed market assessment for new ventures and project development with TEC Edmonton and its partners.

Now he’s working as a marketing and sales specialist at XSensor, which makes pressure-imaging systems for applications like mattress manufacturing and automotive tire testing.

Petz says the internship eased his career transition and prepared him for success.

“It taught me that I needed to work in a really clear process, in terms of identifying opportunities for the implementation of technology into certain areas,” he says. “It also taught me a lot about the nuts and bolts of doing market assessment. Having seen that planning aspect in my internship, now that I’m inside that process, I really see how that works.”



Eric Petz





FR L to R Janice Kapy, Cynthia Stretch, Holly Riopel, Karin Knault, Melissa Scheurman, Christianne Street BR L to R Cindy-Xing Yin, Gail Powley, Sharon Barker, Nancy Shepart, Nafiseh Dadgostar

Did you know TEC Student Entrepreneurship (SEP) inspires early-career research professionals to answer the question, “What can I do with my research?”

SEP provides one-on-one counseling on topics such as intellectual property evaluation and protection, licensing, and market research. In addition, the program connects undergraduate, graduate and doctoral students with job experience to learn the commercialization process first-hand.

One of the challenges of SEP is encouraging students to think about solution based research. In the spring of 2009, SEP joined forces with WISEST (Women In Scholarship, Engineering, Science and Technology) creating an Innovation Contest, to plant the spark on commercialization.

“WISEST has been pleased to collaborate with TEC Edmonton on this initiative which brings value to all – both to the individual students, and in building the innovation community,” said Gail Powley, Vice-Chair of WISEST. “Support for initiatives like this help build a strong entrepreneurial culture on campus.”

Many students don’t think of the practical business application of their research at first. However, Powley believes that application is an important part of discovery.

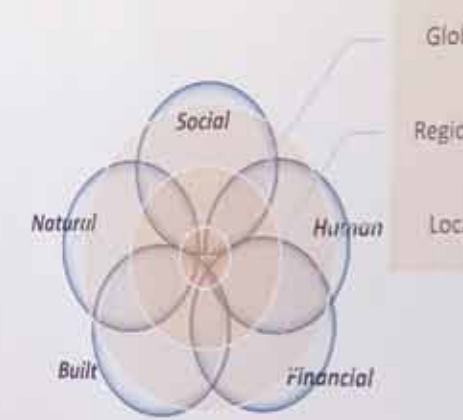
“What made the competition special was the passion of the organizers to help us move our ideas into reality,” says Ioana Cristina Popescu, University of Alberta MBA Candidate 2009. “I never thought of myself as an entrepreneur, but I was forced to come up with a business plan for one of my classes. My plan is far from being ready, but preparing the poster and discussing my idea with the participants brought a lot to light. I am now looking forward to finishing up my plan and getting support from TEC Edmonton to make it real.”



**ABSTRACT**  
 Com.Co is a community based opportunity that offers a wide range of advanced health advisory services to clients who would otherwise receive them from national care providers. An extension of the health system, Com.Co responds to the demographic and labor force changes.  
 Com.Co innovative business model builds a healthier community in a cooperative for-profit structure that nurtures the five capitals of the growing wealth model.  
 The main problems Com.Co solves are increased quality of life at home, decreased healthcare costs, connects community members, reduce community ecological footprint.  
 Possible partners: community leagues and groups, home healthcare providers, public health, patient safety, environmental groups.

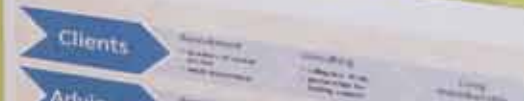
**Com.Co**  
 Ioana Popescu  
 University of Alberta School of Business, M

FIGURE 1: Measures of success for the five capitals at three levels



- CUSTOMER VALUE:**
- Human capital:** clients, advisors, informal care providers  
 Reported improved quality of life, better health outcomes (less stress, medication), less work spent in community, better family relations (less spent), improved life
  - Social capital:** community  
 - Number of events/events, residents participation rate, election participation, employee
  - Natural capital:** environment protection, energy saving, recycling  
 - recycling rate, hectares of green spaces, carpooling and public transportation usage
  - Built capital:** physical assets  
 - Dollar value of physical assets built in the community
  - Financial capital:** income  
 - Personal income increase from Coop share value increase.

FIGURE 3: Process flowchart







Regional Alliance Incubation Den, entrepreneurs presented to a panel to find out which incubator was a best fit for them.

14 with expertise comes opportunity

In December 2008, the Alberta Ingenuity Centre for Machine Learning (AICML) met with TEC Edmonton to decide what commercial applications could be found for the technologies they were developing. TEC Edmonton's EIRs developed a new business strategy, which helped AICML secure funding of approximately \$10 million over 5 years from Alberta Ingenuity.

AICML is a centre that supports research in a branch of artificial intelligence that finds patterns in large data sets, that is, algorithms that 'learn' by analyzing data patterns and processing various external inputs, such as sensory input – intuitive 'learning machines'.

This funding is crucial component of the Centre's ability to operate and without it, AICML would likely dissolve. Dr. Randy Goebel, Principal Investigator (PI) for AICML and Professor in Computing Science at the University of Alberta, is grateful to TEC Edmonton, in particular, Robert Murakami, former NRC-IRAP Executive-in-Residence.

"Robert articulated and will implement a business strategy for commercialization that we, as PIs, understand, while at the same time does not compromise our ability to independently, scientifically investigate areas of interest to us," says Dr. Goebel.

Recognizing the value of TEC Edmonton's expertise in technology transfer and company development, AICML signed a Memorandum of Understanding (MOU) with TEC Edmonton. The MOU acknowledges that TEC Edmonton will support inventions with potential commercial value.

A specific example of this new collaboration process between business and academic research will be the development of new health care applications through a research charter with Alberta Health Services.

"Working closely with the AICML is a great opportunity and challenge as this Centre has some of the best scientific researchers in the world," says Murakami. "An integral part of the strategy developed is the creation of a company called Myriad Machine Learning, Inc. (M2L) which will complete software application developments for industrial clients."

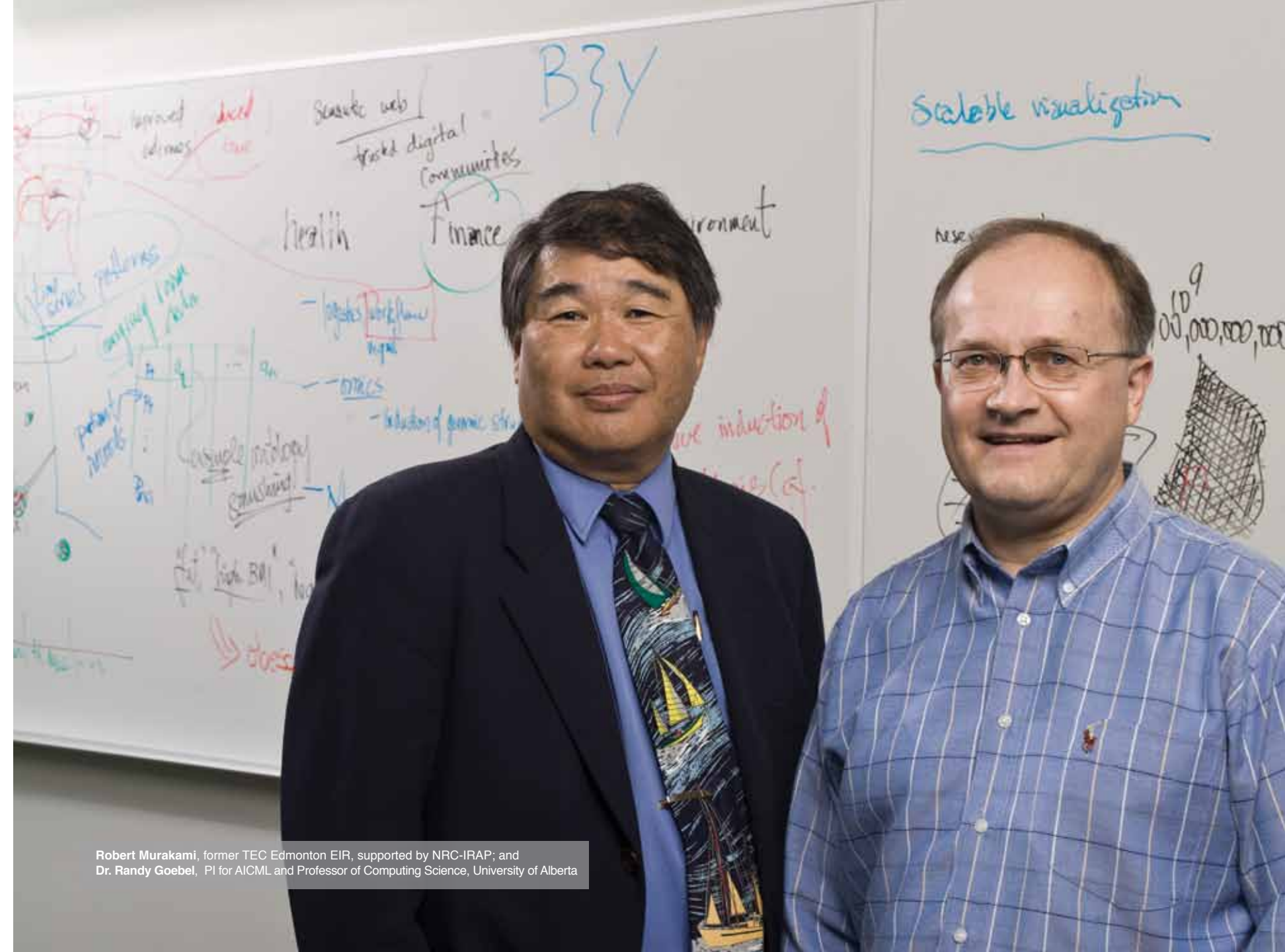
a place to call home

On March 18, 2009 five business incubators signed a MOU to collaborate in helping entrepreneurs access the resources they need to succeed. The Regional Alliance members - TEC Edmonton, novaNAIT and the Northern Alberta Business Incubator (NABI) - welcomed its two newest members, Edmonton Economic Development Corporation and the National Institute for Nanotechnology.

"As business accelerators we're all acutely aware that to gain credibility, early-stage business needs a home," says David Cox, CEO of TEC Edmonton. "At the TEC Centre we receive inquiries for space and sometimes we are not the best fit for that entrepreneur. That's why facility collaboration is so important. The last thing we want to do is turn an entrepreneur away, and now we shouldn't have to."

Through the MOU, the five incubators agreed to work efficiently to use limited local incubator resources by taking advantage of each other's expertise, services, and programs to be more efficient.

"Each incubator within this Regional Alliance has specific strengths and offerings," says Stuart Cullum, Executive Director of novaNAIT. "As entrepreneurs grow, their businesses will require a broad array of support services and this MOU lays a framework for connecting all of the services available within the region."



Robert Murakami, former TEC Edmonton EIR, supported by NRC-IRAP; and Dr. Randy Goebel, PI for AICML and Professor of Computing Science, University of Alberta



## Did you know in 2008 TEC Edmonton received 98 reports of inventions? Did you know 77 patent applications were filed and 48 patents were granted? Did you know 23 technologies were licensed?

### 16 TEC Transfer 2008 Highlights

Total Active Licenses (Exclusive and Non-Exclusive Licenses)	198
Material Transfer Agreements (MTAs)	160
Confidential Disclosure Agreements (CDAs)	93
Letters of Understanding (LOUs)	5
<b>Licensing Revenue (royalties, licenses and option fees)</b>	
Distributed to Inventors	\$ 472,073
Distributed to University of Alberta	\$ 131,787
Distributed to TEC Edmonton	\$ 288,601
<b>Total Licensing Revenue</b>	<b>\$ 892,461</b>

#### exploring the possibilities

TEC Transfer works with inventors to protect intellectual property and discover business prospects. Whether it's licensing technology or starting a company, you need the experts to guide you.

#### vaccine full of promise

Systemic fungal infections can cause severe illness and death in patients who suffer from weak immune systems such as people with HIV/AIDS, cancer, or transplants. Theracarb Inc. hopes this vaccine will benefit these high-risk patient groups.

Dr. David R. Bundle, Chemistry Professor at the University of Alberta and Director for the Alberta Ingenuity Centre for Carbohydrate Science (AICCS), developed a synthetic vaccine designed to prevent a fungal infection caused by *Candida albicans*, a common species of yeast. This vaccine works by raising immunity against certain carbohydrate markers present on the surface. As a result of the vaccine's synthetic nature, the vaccine is versatile, scalable and likely has fewer side effects than traditional vaccine approaches which use weakened live bugs.

TEC Edmonton negotiated the exclusive license agreement to develop the vaccine between Dr. Bundle and Theracarb Inc., a University of Alberta spin-off company that engages in research, development, and commercialization of carbohydrate chemistry products.

"Due to the adaptable and innovative nature of our relationship with TEC Edmonton, TheraCarb and AICCS have evolved a unique partnership for intellectual property protection and commercialization - the first of its kind in Alberta," Sanah Jowhari, Business Development Associate at TheraCarb Inc.

#### implant tracking

With hundreds of companies selling thousands of products for a multi-stage dental implant surgery, it is no wonder dental surgeons have a hard time keeping track of it all.

Dr. John Wolfaardt, a Prosthodontics Specialist and a Director at the Institute for Reconstructive Sciences in Medicine (iRSM), knows that there is a better way to manage implant intricacies than battling with ever expanding spreadsheets and filing cabinets. The better way is the W2 Implant Manager®.

Working with Dr. Gordon Wilkes at the iRSM located in the Misericordia Hospital and Caritas Health, Osseopros Technologies Inc., Osseomed Technologies Inc., Isometrics Consulting Ltd., and Redengine Inc., Dr. Wolfaardt came up with the W2

Implant Manager®, a software based system that keeps track of all important aspects of dental surgery such as installation procedure, inventory, and customer satisfaction.

"Now we have a system that tracks what the clinician has done and uploads it anonymously so that a person can look at the data they put in, in relation to everyone else," says Dr. Wolfaardt. "We know so little about how well one product performs over another. The Implant Manager is the solution."

TEC Edmonton negotiated a license agreement granting Redengine Inc., a local company, exclusive commercial rights to develop the dental implant monitoring system.

#### genetics benefit breeders

"The key to successful commercialization has been a strong communication base with TEC Edmonton," says Dr. Stephen Moore, Professor and Research Chair, University of Alberta's Bovine Genomics Department of Agricultural, Food and Nutritional Science.

Since 2003 Dr. Stephen Moore and his team have undertaken research on genetic tests that indicate animal productivity, including feed efficiency and growth. Through the use of this discovery in genetic analysis, cattle producers will have a better idea of which animals to select for breeding.

"This is the culmination of seven years of work on efficiency and other traits in beef cattle," says Dr. Moore. "We have not finished here however, we continue to work to refine the DNA tests to give better predictions of an animal's genetic potential and thus assist the beef industry in Canada in breeding and management decisions."

TEC Edmonton negotiated the licensing deals with Merial for Dr. Moore's discoveries. Merial, an animal health company, has used these discoveries to offer a gene analysis service known as IGENITY® to cattle breeders.

"Our role is to help move technology to the market, helping inventors like Dr. Moore's team connect with the resources they need to commercialize their discoveries," said David Cox, CEO of TEC Edmonton. "Through these licensing deals, Dr. Moore's invention will be available to breeders across Canada and worldwide and could generate a significant return on investment for the University."

Recently Merial licensed Dr. Moore's latest suite of gene markers to help producers assess an animal's efficiency by predicting Residual Feed Intake (RFI), the difference between the animal's actual feed intake and its predicted feed requirements for maintenance and growth.

"TEC Edmonton has been instrumental in bringing much of the technology developed in my program to market," says Dr. Moore.



Dr. David Bundle, Co-Founder and Chief Scientific Officer, Theracarb Inc. and UofA Professor of Chemistry



Dr. John Wolfaardt, Prosthodontics Specialist and Director, iRSM



Darrell Petras, TEC Transfer Manager, TEC Edmonton; and Dr. Stephen Moore, Professor and Research Chair, UofA's Bovine Genomics Department of Agriculture, Food and Nutritional Science

# Did you know the TEC Centre is home to 22 tenants?

18

discovering incubation

Did you know TEC Edmonton's business incubator – the TEC Centre – is in the heart of downtown Edmonton? **Did you know it has 46,000 sq. ft. of lab and office space for our tenants in life sciences, ICT, nanotechnology, and agriculture?**

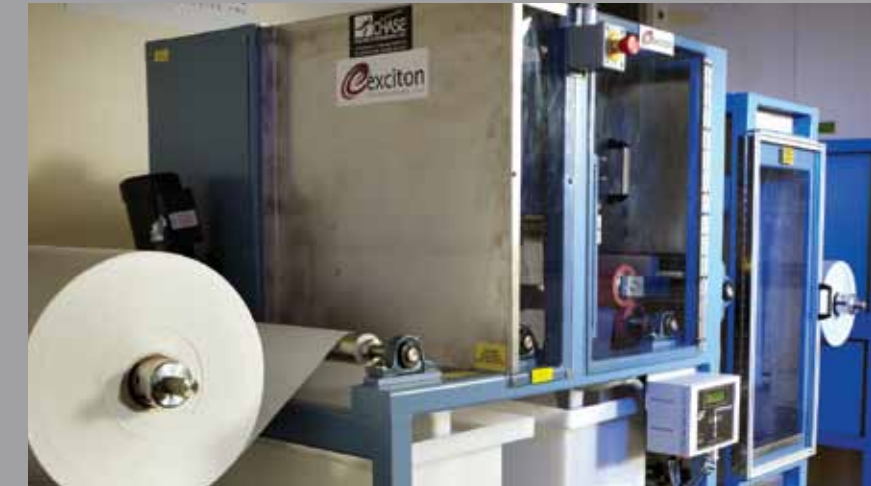


## one room factory

Exciton Technologies Inc., a TEC Centre tenant, has developed a machine that infuses silver into bandages.

Installed as a pilot-scale production machine to begin manufacturing silver coated wound dressings, the new machine will produce samples for clinical evaluations and marketing studies.

Exciton Technologies Inc. is a company focused on technologies that prevent and control infection. "Our products can be manufactured at a fraction of the cost of competing technologies and in a way that it does not create any environmental hazards," said Rod Precht, Exciton's CEO. Precht hopes that their technologies will open the door to next-generation, less expensive, and environmentally friendly products.





## Did you know in 2008 TEC Source met with 70 entrepreneurs and provided free business advice?

20 TEC Source helps local entrepreneurs find the advice they need to bring an idea or business to market.

No matter what stage a business is at, TEC Source is your first contact when seeking TEC Edmonton's services. Most Technopreneurs starting out need expert advice.

### evidence of excellence

"The meeting was definitely time well spent and we received a great value out of it. TEC Source is a very powerful idea. It works and it works very well," says Pawel Brzeminski, CEO of Kiribatu Inc.

"TEC Edmonton has been a constant source of support, direction and motivation for CAN Telematics. The depth and quality of the TEC Source Advisory Panel makes them a critical component of our future success. Any company that is starting out will look back at the point where TEC Edmonton got involved as the upward turning point of their success," says Brent Moore, CEO and President of CAN Telematics Inc.

The TEC Source Advisory Panel matches the right experts to meet technopreneurs needs. In 2008, the Panel met with 16 early-stage tech companies.

"TEC Source is an invaluable planning and brainstorming venue for entrepreneurs to sit down with professional advisors and get practical about how they should attack their business model and expedite their path to commercialization. TEC Source is a win/win not only for entrepreneurs, but also the investment community which will ultimately benefit from enhanced quality deal flow," says Spencer Ord, Manager Corporate Finance & Valuations, Deloitte LLP.

"Too often we find that Technopreneurs have failed to take the necessary steps in starting their businesses and protecting their intellectual property at the outset. The TEC Source Advisory Panel is an invaluable tool in bringing together professional resources to work with Technopreneurs to identify potential pitfalls and provide an easier path to success," says Craig T. McDougall, Partner, Fraser Milner Casgrain LLP.



L to R Ken Gordon – Alberta Deal Generator; Raj Manek – Meyers, Norris, Penny; Paul Grossman – PricewaterhouseCoopers; Spencer Ord – Deloitte; Bruce McPherson – Field Law; Stuart Ross – Royal Bank of Canada; Hugh Wyatt – TEC Edmonton; Craig McDougall – Fraser, Milner, Casgrain.

## Did you know that TEC Edmonton aided Alberta Nanometals Inc. in applying for a \$750,000 grant and Exciton Technologies Inc. in applying for a \$500,000 grant?

TEC Edmonton helps early-stage companies prepare for funding and identify financing resources. Through our grant strategy advice, we work with Technopreneurs to create a long-term funding plan that maximizes grant opportunities for companies in various stages.

### guidance in grants

Dr. Luis Schang, Associate Professor of Biochemistry at the University of Alberta, wasn't sure what to do. He had discovered an antiviral drug for Hepatitis C and other envelope viruses, but he ran out of funding to prove his discovery.

"It was too early for development funding but too late for research funding," Dr. Schang said. "I had to prove my discovery before any company would fund me but I had to have a question to get research funding."

Luckily Dr. Schang was working closely with Farid Foroud, TEC Edmonton's TEC Transfer Officer, who was helping Schang to patent and market this drug.

There are no vaccines against Hepatitis C and currently over 170 million people are infected with it globally. Farid believed that this technology was not only vital for improving global health, but it was also extremely marketable from a commercialization perspective.

TEC Edmonton was able to help Dr. Schang apply for and receive a \$30,000 block grant from Alberta Heritage Foundation for Medical Research (AHFMR). The AHFMR block grant was initially used to show the effects of Dr. Schang's antiviral against Herpes Simplex Virus (HSV). The results were that it was effective against sexual transmission of HSV from animal to animal. Through Farid's advice, gathered from the initial marketing efforts, talking to experts in the industry and a closer market assessment – Dr. Schang decided to pursue the most commercially interesting viral disease – Hepatitis C.

The remainder of the AHFMR block grant was used to demonstrate initial proof of concept. Dr. Schang discovered compounds that worked against Hepatitis C in animals and the successful completion of these experiments attracted a number of companies to this

project. The AHFMR block grant enabled Dr. Schang's group to generate data that showed that these compounds work against HSV and HCV and possibly other envelope viruses such as HIV, Pox, and Influenza.

TEC Edmonton is currently participating in licensing negotiations with an antiviral company to license this great technology.



Farid Foroud, TEC Transfer Officer, TEC Edmonton; and Dr. Luis Schang, UofA Associate Professor of Biochemistry



## Did you know in 2008 TEC Edmonton had significant partnerships with BioNeutra Inc.; Optilume Engineered Light Corporation; Rocketfuel Productions Inc.; Transcriptome Sciences Inc.; Innovequity Inc. and ATG Cell Inc.

22

From evaluating the commercialization potential of inventions, to providing expertise in market research, from mentoring on business plan development, to securing partnerships and investments, TEC JumpStart and the TEC Executives-in-Residence (EIRs) work as a team to give Technopreneurs the TEC commercialization advantage.

### [the sweeter the idea, the better the business](#)

Dr. Jianhua Zhu, CEO of BioNeutra started his company because he saw a need he could address and make a business of it.

“The Alberta government was promoting diversification of industry and talking about healthcare issues as the baby boomers get older,” says Dr. Zhu. “With so many cereal crops in Alberta, I just thought, why not combine it all?”

With his business concept in mind, he gathered ideas from scientists, the government, and the University of Alberta’s Functional Food Centre. Working with a team of researchers with biotechnology backgrounds they developed VitaSugar IMO.

An organic and natural product, VitaSugar IMO is made from Alberta’s cereal crops including wheat, barley, oat, corn, and potatoes. The fibre from this product is soluble and helps reduce cholesterols and blood fat.



With the product in hand, Dr. Zhu set forth on his next challenge – expansion. VitaSugar IMO was already being marketed as an alternative sweetener in the United States when Dr. Zhu approached TEC Edmonton.

Dr. Randy Yatscoff, TEC Edmonton’s EIR, supported by AHFMR, began working with Dr. Zhu to move his vision of expansion into a reality. He saw the potential that BioNeutra had to be highly successful globally and Randy knew what the company would need to do to get there. BioNeutra became a TEC Edmonton Portfolio Company, receiving TEC Edmonton’s maximum attention and help.

“When a company shows potential the way Dr Zhu’s does, it is really rewarding to set it on the right track and facilitate growth,” Randy says. He helped Dr. Zhu change his marketing strategy to open up his consumer target and market the novelty of his product.

“There are plenty of alternative sweeteners out there. But our product is the only sweetener that is also a fibre and a prebiotic,” says Dr. Zhu.

TEC Edmonton helped shape BioNeutra’s business plan and company structure. Next Randy plans to help Dr. Zhu with a marketing strategy so that BioNeutra can attract investment capital.

“I am grateful for TEC Edmonton, especially Randy who has helped BioNeutra a lot. Because of his experience as professor and executive, he knows where we are coming from and he is helping our company prosper,” Dr. Zhu said.



Dr. Jianhua Zhu, CEO of BioNeutra Inc.



adding fuel to fire creates a spin-off

At TEC Edmonton, our Market Analysts are the fuel and our Executives-in-Residence (EIRs) the fire. When the two team up with inventors, dynamic companies unfold.

Transcriptome Science Inc. (TSI) is a University of Alberta spin-off company, benefitting from the energy created by such a combination.

TEC Edmonton's Market Analyst Dean Zaragoza and AHFMR sponsored EIR Dr. Randy Yatscoff have united to help TSI's founders make their business concept a reality.

"The teamwork between an EIR and Analyst facilitates company advancement as both provide a complementary skill-set," says Randy.

TSI is developing a microarray-based chip that can be used to identify diseases causing organ dysfunction by their molecular basis. The transcriptome is a large scale set - tens of thousands of genes - expressed in a particular tissue, which changes when overrun by disease. By using transcriptome profiles, gene chips identify patterns of gene expression that are characteristic of certain diseases. The microarray-based chip allows TSI to measure how disturbed organ tissue is, what the cause of the disturbance is, and whether the organ is at risk for progressive failure.

This technology is significant because current methods of assessing organ biopsies by microscopic assessment are inaccurate. This can lead to inappropriate treatment.

"Our goal is to provide accurate new assessments of disease starters, and reorganize treatment and development of drugs based on what

we learn," says Dr. Phil Halloran, Director of the Alberta Transplant Applied Genomics Centre and Co-Founder of TSI.

Dean works closely with Dr. Halloran, developing a strategy that will capitalize on the business opportunities that these new discoveries present. These include contract research services to pharmaceutical and biotechnology companies, new diagnostic systems and products, and licensing opportunities for the company's unique database. As a TEC Edmonton Portfolio Company, TSI receives the necessary 'company building' TEC resources to grow a successful business.

"We are helping them with intellectual property, market assessments, business planning, and developing a strategy to obtain the funding necessary to execute its business plan," says Dean.



Dean Zaragoza, TEC Edmonton Market Analyst; Dr. Phil Halloran, Director of the Alberta Transplant Applied Genomics Centre and Co-Founder of TSI; and Dr. Randy Yatscoff, TEC EIR, supported by AHFMR

**Did you know 160 entrepreneurs participated in TEC VenturePrize? Did you know that 25 supporters and sponsors make TEC VenturePrize possible, contributing over \$300,000 in cash and in-kind support?**

26 mapping future ventures

TEC VenturePrize, Alberta's flagship business plan competition, offers assistance to entrepreneurs through the seminar series, mentorship, a competition, and professional feedback.

2009 TEC VenturePrize Fast Growth Award Winner

"Going through TEC VenturePrize was a huge benefit to our company's development. The prizes and exposure we received were definitely a benefit. The mentorship and opportunities to engage with other participants gave us excellent feedback and insight that we've used to refine our business strategy," says Ken Bautista, CEO & Creative Director of CIE: Seek Your Own Proof.

CIE: Seek Your Own Proof is a subscription-based community where kids are challenged to investigate history as agents of a fictional agency called the 'Central Institute for Exploration'. CIE offers kids and families opportunities to play both online and offline through real-world activities at local museums.

2009 TEC VenturePrize Student Business Plan Competition Winner

"TEC VenturePrize was extremely beneficial to me. Writing a business plan is not just proving to potential investors that you have a viable business but it also helps in the creation of new ideas and strategies. TEC VenturePrize not only gave KennelSeek.com financial support but also gave me knowledge which will help me grow the site in the future," says Gordon McKinlay, CEO of Kennelseek.com - a website that provides an online reservation and management system to connect pet care providers, namely boarding kennels and catteries, with pet owners.



L to R TEC VenturePrize Student Business Plan Competition winner **Gordon McKinlay** with KennelSeek.com and TEC VenturePrize Fast Growth winners **Jason Suriano** and **Ken Bautista** with CIE: Seek Your Own Proof

**Did you know Alberta Deal Generator is delivered through a partnership between TEC Edmonton and Calgary Technologies Inc.? Did you know that more than \$15 million in financing has been facilitated through Alberta Deal Generator, with more than \$30 million in follow-on investments?**

technopreneurs suit up for boot camps

Enthusiasm for a new technology does not pay the bills. Alberta Deal Generator (ADG) offers Boot Camps to help entrepreneurs evaluate and re-work their business plan to make it ready for investment.

"The ADG Boot Camp really opened our eyes to the true nature of the investment community and reinforced the value of long-term financial planning and bringing on experienced management," says Mark Holtom, COO of Innovequity.

Boot Camps teach how to pitch ideas in a way that appeals to a business savvy investor.

"The timing of the workshop could not have been better for me. I read about software start-ups getting funding from angel investors. I knew that with a few bucks I could really push my company forward. I had a lot of questions about what angel investors want when investing and what kind of negotiations I would need to be ready for. The workshop answered all my questions and more. Real angel investors and experienced entrepreneurs ran the course with true passion," says Randy Troppmann, Founder and Chief Architect of RunningMap.com.

Alberta Deal Generator creates a mechanism whereby entrepreneurs receive training on how to ask for the money they need, while investors get pre-screened investment opportunities.

"As experienced managers, we feel that we know all the key steps required when undertaking a start-up venture. But, we gloss over details that are critical for a company's success such as our sales and marketing plan to exploring market verticals we hadn't considered. These discussions forced a high level of discipline on our management team early on; positioning us well to secure additional financing, and follow-on awards such as Canada's Top 10 and the Virtualization Congress Global Start-Up Competition Award," says Geoff Hayward, President and Founder, Data Gardens.



Ken Gordon, Executive Director of Alberta Deal Generator



## assets

### current assets

	2009	2008
	\$	\$
Unrestricted cash	916,561	-
Restricted cash	129,637	-
Due from the University of Alberta	-	1,394,351
Accounts receivable	92,686	173,962
Prepaid expenses	12,116	11,223
Contributions receivable	485,170	179,776
	1,636,170	1,759,312
Intellectual property recoverable	440,082	387,814
Property and equipment	2,476	24,732
Investments in companies	104,821	111,781
	2,183,549	2,283,639

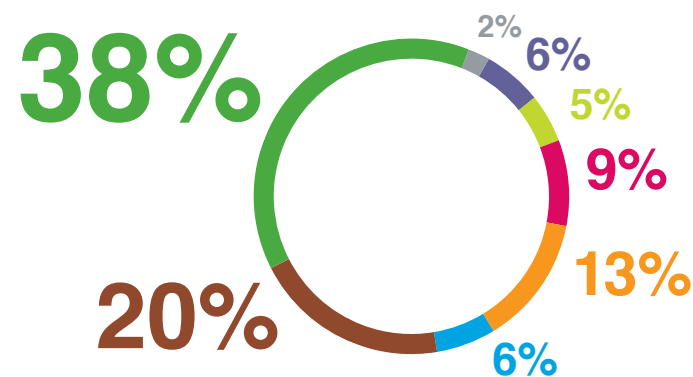
## liabilities and net assets

### current liabilities

Accounts payable and accrued liabilities	1,009,547	473,793
Deposits	43,819	42,463
Deferred contributions	204,349	163,933
	1,257,715	680,189

### net assets

Unrestricted contributions	923,358	1,578,718
Investment in property and equipment	2,476	24,732
	925,834	1,603,450
	2,183,549	2,283,639



## revenue for 2009

- University of Alberta
- Edmonton Economic Development Corporation
- Sponsorship, program fees & other
- Alberta Advanced Education and Technology
- Alberta Ingenuity Fund
- Alberta Heritage Foundation for Medical Research
- Western Economic Diversification Canada
- National Research Council of Canada

## revenue

### contributions from stakeholders

	2009	2008
	\$	\$
University of Alberta	1,500,000	1,971,551
Edmonton Economic Development Corporation	1,100,000	1,100,000
	2,600,000	3,071,551

### operating revenues

License fees	271,669	310,770
Patent cost recovery revenue	16,932	143,915
Sponsorships and program fees	265,401	68,651
Property management income	300,000	50,000
Interest income	27,087	16,580
	881,089	589,916

### grants

Alberta Advanced Education and Technology	742,500	792,119
Alberta Ingenuity Fund	524,609	554,435
Alberta Heritage Foundation for Medical Research	291,490	240,454
Western Economic Diversification Canada	354,450	325,402
National Research Council of Canada	130,000	50,000
University of Alberta	82,185	-
Other grants	-	918
	2,125,234	1,963,328
	5,606,323	5,624,795

## expenses

Salaries and benefits	3,444,803	2,896,644
Professional and consulting	1,030,767	825,774
Programs and administration	1,083,539	835,465
Legal fees	382,322	59,422
Rent and lease	204,058	123,577
Amortization	27,208	24,731
Bad debt	29,278	50,164
	6,201,975	4,815,777

### (Deficiency) Excess of revenues over expenses before other expenses

	(595,652)	809,018
<b>other expenses</b>		
Support of spin-off companies	-	104,998
Loss on investments in companies	81,964	18,572
Excess of revenues over expenses	(677,616)	685,448

TEC Edmonton finished the 2008/09 fiscal year on target of budget and in compliance with the Board of Directors mandated reserve fund. This financial overview has been extracted from the audited financial statements of TEC Edmonton.

### TEC Edmonton's Board of Directors

Chair **Dr. Lorne Babiuk**, Vice-President Research, University of Alberta

Vice-Chair **Ron Gilbertson**, President & CEO of Edmonton Economic Development Corporation

**Richard L. Casey**, former Chairman and CEO of Scios Inc., former Executive Vice-President for ALZA Corporation, and GM for Syntex Corporation

**Oleh Hnatiuk**, President of Connect Capital Corporation

**Bruce Johnson**, retired President of Intuit Canada and Intuit UK

**Wayne Karpoff**, President of Willowglen Systems Inc., Co-Founder and former CTO of YottaYotta Inc., Founding Chair of the Alberta ICT Council and Co-Chair of the Digital Solutions Alliance

**Allan Scott**, \*past President & CEO of Edmonton Economic Development Corporation

**Robert (Bob) Teskey**, former Managing Partner with Field Law

**Doug Maley**, Assistant Deputy Minister, Western Economic Diversification Canada

**Dr. David Cox**, CEO, TEC Edmonton, former President and CEO of Quest PharmaTech Inc., CEO of Apotex Fermentation Inc., Synsorb Biotech Inc. and KS Avicenna Inc.

\*Special Advisor to the Board

### TEC Edmonton's Executive

**David Cox**, PhD, CEO

**Pamela Freeman**, MBA, CMC, Vice President Company Development

**Jayant Kumar**, MSc, MBA, Director TEC Transfer

**Laine Woollard**, BSc (Pharmacy), LLB, QC, Senior Legal Counsel

### eco audit

TEC Edmonton is committed to environmental stewardship. We have chosen a paper source that saves trees and reduces energy consumption, air pollution and solid waste.



Design: Phlo Design Inc.

Did you know  
TEC Edmonton  
has the resources,  
expertise and  
connections to help  
entrepreneurs?



# CONTACT INFORMATION

Located within the TEC Centre, on the fourth floor of Enterprise Square.

**TEC** Edmonton, 4000 TEC Centre, 10230 Jasper Avenue, Edmonton, Alberta, Canada T5J 4P6

Reception: (780) 492-8977 Alberta Toll Free: 1-888-492-8977 Fax: (780) 492-7876

Email: [info@TECedmonton.com](mailto:info@TECedmonton.com) Web site: [www.TECedmonton.com](http://www.TECedmonton.com)