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Prepared by

Ontario's Regional Innovation Networks (ORIN) November 2007

# **Regional Innovation Networks (RINs)**

























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# THE CRITICAL ROLE OF REGIONAL INNOVATION NETWORKS (RINs) IN ONTARIO'S ECONOMY

# **Executive Summary**

In 2003-2004, the Ontario Ministry of Economic Development and Trade conducted "regional cluster studies" which provided a detailed evaluation of 11 Ontario regions. The study noted extreme program, policy and communication silos among regional institutions and government offices of economic development and investment attraction, and found that the Province lacked the business support infrastructure at the regional level needed to grow the provincial economy or promote innovation. As a result, the Ministry recognized the need for a major province-wide initiative to improve accessibility to commercialization resources and establish a network to fuel ongoing innovation support.

With an investment of just over \$13 million, the newly established Ministry of Research and Innovation created Ontario's Regional Innovation Networks (RINs) as a pilot project with the goal of supporting commercialization from



technology transfer to established businesses in communities across the province. Though only in their third year of operation, the RINs have demonstrated their critical role in establishing a regionally-driven innovation environment across the province.

The RINs have developed expert-driven portals to commercialization programs and services supporting the commercialization potential of researchers, entrepreneurs and small to medium-sized businesses. Key partners in this provincial network include universities, colleges, hospitals, research institutions, government commercialization branches, business support organizations, fourth pillar organizations and innovative companies.

# The evolution of ORIN

Just as industry disregards the geographic boundaries of cities or regions, the RINs have recognized the importance of adopting a collective strategy to accelerate innovation. While individual RINs continue to be directed in accordance with the needs of regional researchers, entrepreneurs and growing innovative businesses, collectively, the Ontario Regional Innovation Networks (ORIN) provides the infrastructure for a significantly enhanced provincial network through which to channel the growth of the innovation economy across the province.

Though still in its early days, top-line ORIN benefits for RINs and their communities already include an improved understanding of regional approaches, increased program collaboration and the sharing of information and best practices. The next tactical step for ORIN is participation in the planning and execution of the international life sciences and biotechnology conference, BioNorth 2007: Driving Global Innovation and Commercialization through Partnerships to be held in Ottawa in November.



As the ORIN program evolves, the RINs will engage in strategic exercises to learn about the differences between regions and establish synergistic programming links. The RINs will focus on creating links to required resources by leveraging access to existing services, and partnering with related organizations to develop new services as required.

The RINs bring provincial and regional resources closer to the entrepreneurs, researchers, companies and investors seeking to take an innovative business to the next level. Together, Ontario RINs have demonstrated substantial power to achieve dynamic economic results for the province. In a very short period of time they have evolved to the point of creating an extremely high value for regional stakeholders effectively addressing resources, programs and service gaps.

Through case studies and testimonials, this report will demonstrate the compelling value of the RINs as strategic innovation business collaborators and provide evidence to support the transition of the Ontario RIN program experiment into the leading global program for innovation at the public-private sector interface.

# Purpose

Ontario's Regional Innovation Networks (RINs) are multi-stakeholder organizations designed to support commercialization from technology transfer to established businesses in communities across the province. Principally through effective stakeholder engagement and collaboration focused on the needs of researchers, entrepreneurs and growing companies, RINs play a critical role in establishing a regionally driven innovation environment across the province, thereby facilitating a sustainable culture of innovation with enhanced commercialization infrastructure. This document will demonstrate the compelling value of the RINs as strategic innovation business collaborators, sufficient to transition the Ontario RIN program experiment into the leading global program for innovation at the public-private sector interface.

"My colleagues and I understand that in order to succeed in today's economy, we need to build a culture of innovation in every sector and in every corner of Ontario."

Dalton McGuinty, Premier and Minister of Research and Innovation

# Background

As outlined by Dr. David A. Wolfe, Professor of Political Science at the University of Toronto at Mississauga and Co-Director of the Program on Globalization and Regional Innovation Systems (PROGRIS) at the Munk Centre for International Studies, regions—and more specifically "learning regions" or localized areas displaying innovation prowess—have become the focus of the global competition for research. This is in large part due to global recognition of the economic value of "knowledge spillovers" uniquely enabled by the close physical proximity of related industries<sup>1</sup>, in conjunction with:

- Open communication and policy coordination among levels of government
- Collaborative programming and information sharing among institutions
- Innovation-based strategic planning and support at the community level

In Ontario, powerful economic performance has been established primarily on resource and sunset industries unlikely to remain strong into the next generation.<sup>2</sup> It is innovation, with its significant advances in sectors ranging from bioenergy to nanotechnology, that is demonstrating real potential to have a positive and enduring economic impact. Unsupported, however, innovation alone will not effectively translate into economic growth. As noted by Dr. Richard Florida, Professor of Business and Creativity and Academic Director of the Prosperity Institute at the Rotman School of



Management, University of Toronto, in his best-selling "The Rise of the Creative Class" and

<sup>&</sup>lt;sup>1</sup> David A. Wolfe, Ph.D., "Innovation and Creativity in City Regions", Presentation to the PROGRIS Seminar, Munk Centre, University of Toronto, March 30, 2006

<sup>&</sup>lt;sup>2</sup> Ilse Treurnicht, Ph.D., "Innovation Partnerships: Local, Regional, National & International", Waterloo RIN Conference, May 25, 2006

subsequent "The Flight of the Creative Class", there are new rules of engagement in today's economy. Entrepreneurs require considerable community support focused on the creation of sustainable business models for innovation to truly become a factor in achieving economic growth, and to secure the talent necessary to sustain it.

# Defining a new landscape



Effective collaboration among research institutions, government and industry is key to creating and maintaining the necessary business support infrastructure at the regional level. Prior to the establishment of the RINs, such collaboration did not exist in a coordinated strategic manner in Ontario. As highlighted by the 2003-2004 "regional cluster studies" conducted by the Ministry of Economic Development and Trade, detailed evaluation of 11 Ontario regions noted extreme program, policy and communication silos among regional institutions and government offices of economic development and investment attraction. The result was a disconnected and

in some cases competitive business support infrastructure incapable of growing the provincial economy or promoting innovation. With frustrated innovators and a cumbersome pathway to creating value in the marketplace, the Ministry noted the need for a major, Ontario-wide initiative to improve accessibility to commercialization resources and establish a network to fuel ongoing innovation support. Now championed by the Ministry of Research and Innovation, the original life sciences focus of the initiative has been expanded to include the overall innovation strengths of each region. In this capacity the RINs are responsible for supporting economic development, leveraging regional assets and promoting commercialization-focused linkages among all regional stakeholders, effectively creating a compelling and sustainable innovation environment across Ontario.

See **Appendix A – RINs of Ontario** for an overview of objectives and service offerings for Ontario's 12 RINs.

# **Foundational successes**

"A community connected by an informed and collaborative hub, that can effectively access the resources required for local business to grow, is a community positioned for dynamic economic growth."

#### lain Klugman, President, Communitech

In just over two years of operation, Ontario's 12 RINs have successfully established a new paradigm for highly effective regional innovation systems, including:

- Relevant innovation partnerships
- Clarity around commercialization programs
- Improved access to critical resources for entrepreneurs, researchers and small to medium-sized businesses

Through entrenchment in the community combined with a network that extends nationally and internationally, the RINs have become expert-driven portals to commercialization programs and services, effectively defining a new innovation landscape in communities across the province.

- Ottawa's OCRI Life Sciences focuses on promoting and supporting regional innovators achieving a 200% increase in venture capital investment in the community since 2004, with 2005 investments totalling \$67.4M, and 2006 investments totalling \$100.9M.
- In the GTA, BioDiscovery Toronto, YORKbiotech, the Western GTA Convergence Centre (WGTACC) and related fourth pillar organizations have aligned toward common goals and developed a coordinated suite of programs, services and communication platforms to link the largest network of life science industry stakeholders in the province, spanning world-class research institutions to multi-national companies, making significant strides to unify and streamline the commercialization efforts of the GTA's complex and dynamic innovation infrastructure.
- In Waterloo Region, through Communitech's networks and business support infrastructure, with services now augmented by the Accelerator Centre (AC), the handful of technology companies in the mid 1990s has grown to more than 400 companies supporting some 40,000 jobs in 2007.
- In Eastern Ontario, the Eastern Lake Ontario Regional Innovation Network (elorin) has leveraged more than \$520,000 against funding from the Ministry of Research and Innovation to support significant advancement of biobusiness opportunities in the Brighton to Brockville corridor.
- In Hamilton, the Golden Horseshoe BioSciences Network's (GHBN) "full contact" approach to networking and highly successful programs including *Innovation Café* and Peer to Peer events have attracted requests to partner on related programs with other fourth pillar organizations, and to serve as a best practice model for the development of the Golden Horseshoe Innovation Alliance.
- In Guelph, the **Guelph Partnership for Innovation (GPI)** is transforming the potential of the community by raising \$600,000 in matched funds to enable regional, national and international network development, and the establishment of a one-stop location for agribusiness, agri-food and life sciences.
- In London, The Stiller Centre stands as an example of highly effective collaboration, providing an incubator model of business development to nurture local entrepreneurship and innovation while facilitating access to additional resources through related organizations and programs in the community.
- In the North, the "youngest" RIN, Innovation Initiatives Ontario North (IION), has established an expert-driven network of specialists with a rapid SWAT-team approach to creating value through specialization in economic sectors outside the mandate of other fourth pillar organizations.
- In Peterborough, the Greater Peterborough Region DNA Cluster is generating the critical mass required to create a "sea change" equivalent to the establishment of Trent University and Fleming College in the community, by playing a key facilitation role in the DNA Cluster Building at Trent and establishing a broad network of institutional, community and industry partners to promote technology commercialization.

In Southern Ontario, the Southern Ontario Regional Innovation Network (SOBIN)
has become well entrenched in the community through its reputation for subject
matter expertise, ability to facilitate knowledge exchange, and proven capacity to
build innovative partnerships among industry, researchers and government to create
economic value for the region.

# The new network

Combined the RINs are supporting the commercialization potential of researchers, entrepreneurs and small to medium-sized businesses through an effective, province-wide network that includes among its key partners:

- 18 universities
- 11 colleges
- 13 hospitals
- 6 research institutes
- All commercialization branches of regional, provincial and federal governments
- Hundreds of business support and fourth pillar organizations
- Thousands of innovation companies, from start-up to fully established businesses

This is the RIN program at work, where 12 regional networks led by Executive Directors with significant depth of industry experience are defining a new paradigm for collaboration focused on distinct commercialization outputs achieved through highly effective regional innovation systems across the province.

See **Appendix B** – **Case Studies**, for a more detailed illustration of RIN-facilitated accomplishments.

# Strength of leadership

The driving force behind each RIN is a knowledgeable team of experts dedicated to the promotion of commercialization to create value in the Ontario marketplace. The following representative Executive Directors have a significant breadth and depth of skills acquired in innovation-based roles derived from broad experience in industry, government, and/or academia.

- Tom Corr of the Accelerator Centre at the Waterloo Research and Technology Park was previously Director of Commercialization - IT & Communications at the University of Toronto. Mr. Corr's career includes over 30 years in the IT sector including positions as Managing Partner at Catalyst Partnership; founder and CEO of Momentum Systems; founder, CEO and president of Applied Development Corp.; and president of Canadian Data Processing Corp. Mr. Corr also teaches part-time in the EMBA program at the University of Toronto and in the Masters of Engineering program at McMaster University. Mr. Corr's education includes a Doctor of Business degree from Henley Management College/Brunel University in England, an MBA from the University of Toronto, and an Advanced Post Graduate Degree in Management Consultancy from Henley Management College.
- Robert Deline of Innovation Initiatives Ontario North (IION) has over 30 years of experience within the health care, biotechnology, and pharmaceutical area. Previous roles include 23 years with Boehringer Ingelheim, starting as a sales rep and ending as President Director of the company's Indonesian operations. In 1998 Mr. Deline joined a New Jersey delivery system start-up company as an investor and business

development consultant. In 1999 he further established his consulting business in Seoul, South Korea. While in South Korea he worked on a variety of projects, including biotechnology policy and infrastructure, strategic and marketing planning, investment analysis, immigration policy, tourism, functional foods and nutraceuticals product development. He was also active as a part time lecturer at the Samsung Global Management Institute on globalization and cross-cultural related issues. Mr. Deline is also a minority shareholder and corporate director in the food division of a food product business he developed and recently sold to a Japanese company. Mr. Deline is a graduate of Laurentian University with a BA in Geography and Political Science.

- Dr. Robert Foldes of YORKbiotech has more than 18 years of experience in the life • science industry. Prior to joining YORKbiotech in early 2006 he consulted to academic technology transfer organizations, and biotechnology and pharmaceutical firms (2005) and served as President, Chief Executive Officer and Director of Cytochroma Inc. (2000-2004). Robert helped raise more than \$24 million in financing for the privately held drug discovery and development company and succeeded in inlicensing and advancing the company's lead drug candidate for psoriasis from research to Phase I clinical studies. He also negotiated the expansion of a license and research agreement with a multi-national specialty pharmaceutical company. Dr. Foldes previously served as Director, Research Business Development at The Hospital for Sick Children (HSC), which is one of the largest paediatric academic health science centres in the world. During his tenure at HSC, his office managed 119 research agreements and 46 license agreements (more than 56 new agreements were negotiated) generating revenues exceeding \$6.5 million per year. Dr. Foldes also spent seven years with Allelix Biopharmaceuticals Inc. in various scientific and management positions. In his last role as Manager of Business Development, Dr. Foldes in-licensed several key drug discovery technologies and helped to secure several strategic alliances with pharmaceutical and biotechnology companies. Dr. Foldes received his Honours BSc from the University of Toronto with a specialization in Biochemistry and a minor in Chemistry. He received his PhD in Pharmacology from the University of Nebraska Medical Center, and MBA from York University's Schulich School of Business.
- Dr. Darlene Homonko of the Golden Horseshoe Biosciences Network (GHBN) has more than five years experience in life sciences commercialization including experience in the venture capital sector as a key member of a small team that managed an early stage Canadian biomedical fund, Milestone Medica Corporation (MMC). In 2004-2005, Dr. Homonko acted as Director of Operations and Business Development for one of MMC's companies Molecular Templates Inc. (MTI), a spin out of the University Health Network in Toronto. MTI specializes in the development of anti-cancer therapeutics from bacterial proteins. Most recently, Dr. Homonko was Industry Liaison Officer at the University of Toronto Innovations Foundation where she focused on identifying new spin out opportunities in the life science and convergent medical technologies. Dr. Homonko holds a PhD in Neuroscience from the University of Toronto, an MSc in Kinesiology from Dalhousie University, and a BSc in Physical Education, Health, and General Science from the University of Rhode Island.
- Shelagh McDonald of Eastern Lake Ontario Regional Innovation Network (elorin) has been involved in establishing elorin since its conception in June 2004. Ms. McDonald has directed work on the Biotechnology Action Plan for the greater Kingston region since 2000. She has developed an awareness of the benefits of the sector for economic development in the region and her expertise in the biotechnology sector has had success in identifying connections between industry and research with potential for collaboration. Previously, Ms. McDonald worked for Queen's

University, most recently as the Associate University Registrar, Recruitment and Undergraduate Admissions, a position that she held for 12 years. Ms. McDonald sits on several Boards, including the Kingston Technology Council. Ms. McDonald obtained her BA and MBA degrees from Queen's University.

- Matt McLean of the Southern Ontario Bioproducts Innovation Network (SOBIN) has a lifetime of hands-on experience in agriculture complimented by more than a decade of work experience in the agriculture industry. Previous affiliations include several years with the Ontario Soybean Growers (OSG) where Mr. McLean ended his tenure as Research and Bioproducts Manager in 2005, to take on the role of Executive Director of SOBIN. Mr. McLean holds a BSc in Environmental Biology and a MBA in Agriculture Business from the University of Guelph.
- Dr. David Shindler of BioDiscovery Toronto is the former President and CEO of Milestone Medica Corporation, a company associated with Royal Bank Technology Ventures and dedicated to creating new commercial ventures based on technology from Canada's leading universities and research hospitals. Between 1990 and 1998, Dr. Shindler served as Senior Executive and Commercial Director of the Canadian Genetic Diseases Network, which managed major pharmaceutical deals, formed companies and attracted substantial public and private investments and international recognition. Previously, Dr. Shindler was employed in Industry Canada as Manager of Canada's National Biotechnology Strategy and advised on industrial R&D policy. His international experience includes a period as Counsellor - Science and Technology at the Canadian High Commission in London, England. He holds a PhD with a specialization in microbiology from the University of Ottawa.
- Mr. Glen Smeltzer of Stiller Centre for Technology Commercialization has over 19 years experience working with emerging technology companies, both as a start-up CEO and in early-stage venture capital. For seven years he led Advantage Medical, a manufacturer of neurodiagnostic equipment, from start-up and market entry to profitability and its eventual acquisition. More recently, Mr. Smeltzer was part of the senior management team at Fullarton Capital, managing venture investments in a variety of emerging Canadian technology companies. In addition to serving on the Board of the Stiller Centre since 2001, he has served on the board of a number of developing technology companies. Glen is also a Partner with Fullarton Partners, a London-based firm offering financial, transaction and management services to small and medium-sized organizations. Mr. Smeltzer holds a Chemical Engineering degree from the University of Waterloo, and an MBA from the Ivey School of Business at the University of Western Ontario.
- Jim Wadleigh of Guelph Partnership for Innovation (GPI) has 30 years of experience working with innovation and commercialization of new technologies, with previous roles including marketing, management and most recently, as General Manager, Ontario Feed, Land O'Lakes Inc. An experienced leader and manager in private and cooperative business, leading R&D, manufacturing, sales and volunteer organizations, Mr. Wadleigh is also active in service to local and world communities, skilled at strategic and tactical organization and hands-on execution, with a strong commitment to building community capacity. Mr. Wadleigh holds an MSc and BSc in Agriculture from the University of Guelph and a BA majoring in Biology from Mount Allison University.

Together with their small teams of sector experts and broad network of community partners, the RINs are well poised to add value to the economies of the regions in which they work and to the provincial economy overall.

# Sector focus

Sectors represented within the Ontario RIN client base include some of the top economic priorities for Ontario:

- Alternative energy, energy conservation, bioenergy – a top economic priority for the province, which is committed to producing 10% of its energy from renewable sources by 2010
- **Biotechnology** the third largest concentration of biotech firms on North America, generating 53% of Canada's biotech revenue (\$2.2B in 2002)



- Forestry employing 20% of the population in more than 50 Northern Ontario communities, the sector's combined logging, wood and paper industry shipments were valued at \$18B in 2001
- Information and communications technologies (ICT) a global leader in telecom equipment, software development and services, digital media and web, microelectronics, VoIP, wireless broadband and photonics, Ontario's ICT sector includes more than 5000 companies supporting 220,000 jobs
- Medical diagnostics, devices and assistive technologies more than 600 companies supporting 22,000 jobs, with revenues of \$5B in 2004
- **Mining/remediation** a world-ranked minerals producer, Ontario's mining sector produces more than \$7B in minerals annually
- Nanotechnology a sector poised to revolutionize all aspects of innovation, boasting the world's leading scholars in chemistry, physics, electrical engineering and materials science
- Pharmaceuticals a sector employing more than 16,000 people in Ontario with sales of \$6.7B in 2005

# Partnerships in progress

As we approach 2008 and the conclusion of the program's pilot stage, individual RINs have established effective business support networks and programming for regional clients. Acting as a collaborative force in communities across Ontario, RINs have begun to successfully address the communication silos among industry, research institutions and various levels of government, greatly enhancing what Wolfe refers to as the "social learning dynamics and knowledge flows between economic actors"<sup>3</sup> in each region.

Related regional partnership examples include:

• **OCRI Life Sciences** partnership with the Ottawa Technology Transfer Network (OTTN) to increase the pace of "discovery to market".

<sup>&</sup>lt;sup>3</sup> David A. Wolfe, Ph.D., "Innovation and Creativity in City Regions", Presentation to the PROGRIS Seminar, Munk Centre, University of Toronto, March 30, 2006

- Innovation Initiatives Ontario North (IION) partnerships with the Ontario Forest Research Institute, the Ontario Ministry of Natural Resources, the Ontario Ministry of Northen Development and Mines, FPInnovations, Industry Canada, Lakehead University Biorefinery Chair, the Bioindustrial Innovation Cantre, the Ontario Chemical Value Chain Initiative, and the BioAuto Council to establish a forestry biorefinery leading to an Ontario sustainable chemical value chain and remain on the cutting edge of forestry-related bioproduct research, new forestry-based business commercialization, and forestry biomass/bioproduct policy development.
- **Golden Horseshoe BioSciences Network (GHBN)** partnership with Niagara Economic Development Corporation, Brock University, Niagara College, Hamilton Health Sciences and St. Joseph's Health Care, to provide a full range of business supports to start-up, small and medium-sized businesses in the region.
- YORKbiotech's partnership with the Schulich School of Business and partners including the Ontario Centres of Excellence to plan and implement a Healthcare and Biotechnology Venture Challenge in order to promote entrepreneurialism in the scientific and business student communities.
- Greater Peterborough Region DNA Cluster partnership with Trent University and Fleming College to accelerate commercialization of fastthroughput DNA profiling and forensics technology, and with the Greater Peterborough Area Economic Development Corporation to facilitate related business start-ups and expansions through provision of mentoring and access to capital programs.



RINs are also partnering with each other on events and program-based opportunities to maximize the networking and information-sharing potential for clients. Examples of such partnerships include:

- YORKbiotech and the Western Greater Toronto Area Convergence Centre (WGTACC) on an informative breakfast speaker panel series.
- Accelerator Centre (AC) and Guelph Partnership for Innovation (GPI) on a technical sales training and mentoring program.
- Southwestern Ontario Bioproducts Innovation Network (SOBIN), Eastern Lake Ontario Regional Innovation Network (elorin), Guelph Partnership for Innovation (GPI), OCRI Life Sciences and Innovation Initiatives Ontario North (IION) on initiatives to strengthen Ontario's global competitiveness in the bioproducts sector.
- Golden Horseshoe Biosciences Network (GHBN), YORKbiotech, and other partners on a "Cross Border" conference facilitating information exchange and partnership between medical device companies in Ontario and Upstate New York.
- BioDiscovery Toronto, Golden Horseshoe Biosciences Network (GHBN), Western Greater Toronto Area Convergence Centre (WGTACC) and YORKbiotech on an annual speaker panel series, in further partnership with the Institute of Electrical Engineers (IEE).

# The evolution of ORIN

Just as industry disregards the geographic boundaries of cities or regions, RINs have recognized the importance of adopting a collective strategy to accelerate innovation's "move to the marketplace" by organizing as a unified network under the banner of "ORIN", or "Ontario's Regional Innovation Networks." While individual RINs continue to be directed in accordance with the needs of regional researchers, entrepreneurs and growing innovative businesses, ORIN provides the infrastructure for a significantly enhanced provincial network through which to



channel the growth of the innovation economy across the province. In order to optimize opportunity-based collaborations, ORIN is planning semi-annual meetings focused on maximizing the effectiveness of RINs in creating a culture of innovation in Ontario, in accordance with:

- The measures of the November 2006 Strategic Plan of the Ministry of Research and Innovation<sup>4</sup>
- Key RIN program performance measures as outlined by the Ministry of Research and Innovation<sup>5</sup>
- Evolving new metrics that speak specifically to the mandate of RINs as unique regional networks

Despite its early days, top line ORIN benefits for RINs and the communities they represent already include:

- Improved understanding of regional approaches
- Programming collaboration
- Sharing of information and best practices

The next tactical steps for ORIN include the BioNorth 2007 Conference focused on the theme "Driving Global Innovation and Commercialization through Partnerships" in November. An extremely successful conference originally facilitated by OCRI Life Sciences, BioNorth draws international attention to the Canadian capacity for bio-based innovation, with a focus on Ontario as the third largest regional concentration of biotechnology firms in North America.<sup>6</sup> More than 300 industry stakeholders from around the globe are expected to attend this year's two-day event in Ottawa The 12 RINs joined forces to assist in the organization of expert panels on key topics including research advances, related commercial opportunities and how to speed the pace of innovation commercialization. With all RINs working together on conference planning and execution, the goal is to ensure the most complete presentation of Ontario innovations to international investors looking for collaboration opportunities.

Going forward, through ORIN the RINs will also be engaging in further strategic exercises, learning about the differences between regions and establishing synergistic programming links. With very small teams and limited budgets, RINs will focus on creating links to required resources by leveraging deep roots in the community to access existing services, and partnering with related organizations to develop any new services required. Continuing to fortify regional connections will assist in maximizing the benefit of best practices, enabling improved overall capacity to accelerate the pace and quality of commercial outcomes province-wide.

<sup>&</sup>lt;sup>4</sup> Economic indicators; industrial innovation indicators; academic indicators; innovation environment indicators; levels of investment indicators; communication and outreach indicators; industrial innovation indicators.

<sup>&</sup>lt;sup>5</sup> RIN Core Activities and Projects; Outputs and Outcomes of RIN Activities with Firms and Entrepreneurs; Success Stories; Overview of the Year

<sup>&</sup>lt;sup>6</sup> "Making Innovation Inevitable: Ontario to Boost Research, Grow Economy, Curb Climate Change", <u>CHEManager Europe</u>, 7-8/2007

# A unique approach

As highly effective industry-linked networks designed to have a province-wide impact of improved commercialization of technology, the RIN agenda is achieved via:

- Consistent client focus
- Results-oriented business acumen
- Acute understanding of regional innovation positioning and potential
- Ability to communicate government platforms and programs
- Ability to facilitate effective programming in conjunction with community partners
- Overall capacity to establish and evolve the networks vital for innovative businesses to create value in the marketplace



A hub of innovation support, RINs bring provincial and regional resources closer to the entrepreneurs, researchers, companies and investors seeking to take an innovative business to the next level. They play a **connector** role in the commercialization process, acting as a key source of knowledge transfer and communication for stakeholders. Maintaining and growing the networks is therefore an ongoing core activity, complemented by progress toward **co-location** and physical or virtual convergence/synergy centres for each region, with success

ultimately hinging on the capacity of the RIN as **collaborator**, liaising with government, institutions and industry to ensure that the community's entrepreneurs and innovators have access to the services and resources they need to be successful.

# Connector

In their connector role, the RIN mandate is to expediently link individual companies within each region to available resources that can help advance the company to the next level. Entrepreneurial and results-oriented, RIN networking and program development is focused on the needs of regional clients. Highly collaborative, RINs work with regional partners to ensure availability of the range of commercialization support services required, by:

- Building strong networks within the community
- Breaking down traditional communication silos between business, universities and government
- Creating opportunities for networking
- Distilling information about government programs
- Connecting businesses to potential partners within and outside the community
- Partnering with related organizations (including other RINs) to deliver innovation support programs, including regular networking sessions, high profile speaker sessions, seminar series, etc.

The following testimonials from the GTA, Ottawa and Northern Ontario illustrate the impact of the RIN as connector:

# RIN's multi-stakeholder partnerships translating to valuable business opportunities

"The creation of YORKbiotech has served as a real catalyst for bringing together and growing the life sciences cluster in York Region. It has facilitated relationships among large companies and institutions in the area, enhanced awareness about the strong medical device presence in the region, and led to concrete proposals such as the National Centre for Medical Device Development. It has brought together regional and municipal governments, universities and colleges, large companies and SMEs, all operating in a collaborative spirit and for the greater good of the sector. Partnership agreements are being made and business is being done as result of the creation of this RIN."

J. Mark Lievonen, President, Sanofi Pasteur Limited

#### **RIN network pays dividends**

"Throughout the process of developing the Canada-Germany Neurochip Development Initiative (NDI), OCRI has been a key element and this interaction has spilled over to other activities of the Centre for Research in Biopharmaceuticals & Biotechnology at the University of Ottawa (CRBB). In addition, OCRI has been instrumental in initiating meetings between CRBB and industry to specifically develop participation in the NDI and also the initiative on Biofilms through BIOME Canada. For our activities OCRI is proving to be invaluable as a conduit to international and national opportunities as well as offering networking with industry. I highly recommend that OCRI be acknowledged for their work with the academic and biotechnology sectors. From our perspective we intend to nurture this relationship and look forward to many more value-added projects."

Anthony Krantis, Director, Centre for Research in Biopharmaceuticals & Biotechnology, University of Ottawa; Co-Director, BIOME Canada; Director, Canadian ICC Research Network

### RIN's sector specialist approach key to reenergizing regional economy

"Dr. Magdzinski and IION are developing effective linkages with both federal and provincial economic development organizations. It is very important to have sector specialists on the ground in Northern Ontario to work with entrepreneurs in local communities and link them with relevant partners in other parts of Ontario and in the rest of Canada. It is my opinion that Dr. Magdzinski and IION are making a difference and are contributing to the condition as and the projects that will help turn around the slow decline of the forest sector and the economy of Northern Ontario."

> John F. Jaworski, PhD, Senior Development Officer, Life Sciences Branch, Industry Canada

# Collaborator

The broad level of collaboration accomplished by RINs is achieved by acting specifically on behalf of clients; helping them access required resources through a deeply entrenched community network. The London community provides a strong example, with the RIN itself founded on a community-wide collaborative effort:

## Breaking down the silos

In 2002, the City of London boasted a prime Southern Ontario location, a large and well-educated workforce,



internationally recognized centres of health, research and education, and a history of proactive fiscal management. But instead of resounding economic success, the city was seeing a decline in the urban growth rate, the population and the number of high-end jobs.

#### The analysis

Multiple development organizations with separate mandates were a big part of the problem. Despite its potential, the city had become:

- A poorly defined economic destination
- A net knowledge exporter
- Dependent on branch plant operations
- Grossly undercapitalized

To achieve the critical mass necessary for an innovation driven economy, all stakeholders needed to get on the same page.

#### The solution

After considerable deliberation, like-minded organizations within the city were amalgamated to create a new entity, one that included a university, a municipal economic development organization, a member-based business support organization (London TechAlliance), and a business incubator where innovation start-ups could "truly come to life" (The Stiller Centre).

#### The results

The 'mutual self interest' created by the amalgamation has significantly improved London's ability to attract investment and talent, to grow organically, launch a capitalization program and leverage local assets to improve the business environment.<sup>7</sup> Evidence of recent successes includes:

- \$3M raised by Sertonex, a cellular therapy company
- \$20M raised by Viron Therapeutics Inc, a drug developer focused on inflammatory disease treatment
- Over \$3M in private placements realized for Critical Outcome Technologies Inc. (COTI)

Services provided through the RIN to help achieve such successes include access to business mentorship, industry contacts and investor readiness programs.<sup>8</sup>

<sup>&</sup>lt;sup>7</sup> Marilyn Sinclair, "London's Next Economy: A Game Plan for Accelerating New Business Development in the London Region", Waterloo RIN Conference, May 2006

<sup>&</sup>lt;sup>8</sup> Jen Nelles, Research Associate, "RIN Funding: The Gateway to London's New Economy", a study for PROGRIS, Munk Centre for International Studies, University of Toronto

# **Co-location**

Formalizing their connector role into physical or virtual convergence/synergy centres is another key RIN function, with such centres providing all regional stakeholders with a central hub through which they can access the range of services and opportunities their innovative business needs.

#### Physical synergy in Waterloo

Located in the Waterloo Research and Technology Park, **The Accelerator Centre** is a 22,700 sq ft facility providing qualified entrepreneurs with:

- Office space
- Access to coaching, mentoring and professional management advice
- Services such as accounting, IP management, internet access and vital business networks

Clients will typically stay with the Accelerator Centre for one to three years before graduating to the Waterloo Research and Technology Park or another location in Waterloo Region, at which point they stay connected to the Centre by acting as mentors to other early stage entrepreneurs just coming into the program. Although the Accelerator Centre only received possession of its completed space on April 10, 2006, they are already at 98% capacity with more than 17 high-tech start-up companies choosing to grow their businesses there. These companies have received a combined \$750K in funding—a number that's expected to increase next year.



"The Accelerator Centre exists to provide new ventures with two supports crucial to their viability... a physical space in which to operate... (and) access to industry experts who can help direct budding entrepreneurs through the process for launching a technology enterprise."

> Dr. Gerry Sullivan, Partner and Co-founder, Priiva Consulting Corporation and former CEO, Accelerator Centre

#### ...in Hamilton

Located in the Michael G. DeGroote Centre for Learning and Discovery at McMaster University, McMaster Bio Sciences Incubation Centre (MBIC) is a research transition facility designed to support and accelerate commercialization efforts by offering:

- A professional, supportive environment
- Full-service laboratories
- Executive offices
- Administrative facilities
- Office equipment
- Executive meeting space
- On-site business advice
- Referral services
- Networking opportunities
- Lab facilities ranging from 450-850 square feet

**Golden Horseshoe Biosciences Network** (GHBN) helps start-ups to get established in the Centre, linking them with the University and other resources and activities in the region. Clients also benefit from interacting with other researchers who are located in this world-class research facility.

#### ...in Peterborough

In August 2006 the new 57,000 sq ft **DNA Building** opened at Trent University. The facility uniquely combines:

- Laboratories related to the Natural Resources DNA Profiling and Forensic Centre
- The Trent-Fleming DNA Forensics Program
- The Ontario Ministry of Natural Resources

...with

- Faculty and graduate student offices
- Teaching space
- "Touchdown facilities" for start-up organizations
- The Greater Peterborough Region DNA Cluster RIN.



Bringing all the aspects of DNA/biotech/forensic research along with the DNA Cluster into one facility has facilitated networking between researchers, and the potential for new commercialization opportunities. It is through this 'synergy' that the DNA Cluster is beginning to assist in the 'mind to market' transition. The International Consortium on Anti-Virals (ICAV) is among the key organizations attached to the DNA Cluster and located at the DNA Building.

#### ...in Mississauga

Through partnership with the Mississauga Technology Business Accelerator, the **Western Greater Toronto Area Convergence Centre (WGTACC)** provides clients with access to:

- Business services (management consulting, legal, accounting, patenting, business development)
- Technical services (product development, instrumental analysis)
- University of Toronto at Mississauga technology and management services (facilities, library, faculty, research organizations)
- 3D imaging technology (for 3D digital archiving of your objects to retain their shape and true colour)
- Novel Molecule Initiative and Real Time Value Tracking System
- Networking opportunities and events through the Mississauga Technology Association, Information Technology Association of Canada, and affiliated organizations
- International incubator networks and facilities
- Mentoring services covering a variety of different skill sets

#### Virtual synergy in the GTA

Located inside MaRS Discovery Centre, BioDiscovery Toronto offers an internet portal providing members, industry and the financial community with a central interface including:

- A focal point-of-entry into the network of Toronto's research institutions and hospitals
- Access to new and emerging technologies available for licensing and company creation
- Access to state-of-the-art biomedical core facilities and services available for research and development support

While the majority of the site's visitors are from the east coast of Canada and the U.S., there are also a growing number from Europe and Asia, a trend due to BioDiscovery Toronto's global branding strategy and outreach programs.

# **Expanded co-location initiatives**

With the benefits of co-location broadly understood across ORIN, other RINs facilitate similar convergence/synergy centres to meet the needs of clients in their regions. Exciting new centres currently in the planning stage include:

- The new 50,000 sq ft **Bioscience Incubation Centre** to be located within the McMaster Innovation Park in Hamilton, and
- The National Centre for Medical Device Development to be located in the Town of Markham.

In the former, the **Golden Horseshoe Biosciences Network (GHBN)** played a lead role in the new centre's business plan development, partnering with the City of Hamilton and McMaster University. In the latter, **YORKbiotech** played a catalyst, facilitator and planning role with a large consortium of over 30 organizations led by York University and the Town of Markham.

# Putting it all together

Together, Ontario RINs have demonstrated substantial power to achieve dynamic economic results for Ontario. In a very short period of time they have evolved, creating valuable services for regional stakeholders, enabling clients to meet their business development goals and increasing the capacity to effectively address resource, program and service gaps.

The gaps are real. The deficit of meaningful communication and understanding among business, universities and government has



had a clear impact on the capacity of entrepreneurs to commercialize innovations in Ontario. Province-wide, RINs have improved awareness of and access to government programs. They've clarified the needs of today's innovators to policymakers, and maintained focus on client needs by understanding disconnections among innovation agendas at various levels of government.

**There's a clear value in "neutral."** Other organizations and offices of economic development have mandates related to commercialization that can be encumbered by political, institutional and corporate barriers. As neutral networks, RINs are uniquely positioned to focus fully on the needs of clients, using their networks to connect innovators, entrepreneurs and growing businesses with the services they need to be successful.



**Partnerships can't be underestimated.** Through community and province-wide partnerships, the RINs are replacing traditional communication silos with a broader understanding of issues and opportunities increasing accessibility to the right programs and services in communities across the province.

A solid network takes time. While the value of building networks among key stakeholders is clear, the time and energy it takes to establish, expand and maintain a network has been traditionally underestimated. Much of a RIN

Executive Director's time is spent out of the office—attending events, meeting stakeholders and walking the halls of universities, hospitals and established businesses. This time investment is necessary to ensure the continued value of the RIN as an informed conduit to the broad range of support required to advance innovative businesses.

**Efficiency inspires impact.** Despite the small organizational structure of each RIN, their capacity as networked, neutral and nimble organizations has become a well-regarded asset in the communities where they work to assist an increasing number of researchers, entrepreneurs and growing companies to advance to the next level of enterprise.

**Experience matters.** Each RIN relies heavily on the credibility and momentum established by the Executive Director who leverages tremendous experience in fields including academia, business and economic development. Industry knowledge and sector specialization is crucial to the success of programming and support roles.

# The way forward

This document has outlined the critical role of RINs in the Ontario innovation economy, providing evidence of success through case studies and testimonials, speaking to the capacity of the overall network to play a leading role in achieving the innovation goals of Ontario, by:

- Helping innovative companies to grow
- Improving the capacity of communities to attract talent
- Maximizing the public-private interface on matters of investment and related support
- Playing a role in educating the innovators and entrepreneurs of tomorrow
- Serving as the collaborative force focused on optimizing the development and commercialization of innovative products and services

Going forward, the RINs of Ontario will continue to work to establish meaningful networks and key programs within their regions and province-wide. This will be accomplished by:

- Fortifying the province-wide network of RINs through ORIN
- · Continuing to work with other fourth pillar organizations for the benefit of clients
- Developing key programs as required by regional stakeholders
- Working to more firmly entrench the culture of innovation through stronger linkages among industry, research institutions and government

While RINs will aim to achieve a higher proportion of overall funding from regional stakeholders, continued provincial support is required to ensure:

 Continuity of programs and services targeted at researchers, entrepreneurs and innovative SMEs

- Enhanced partnerships with technology transfer offices to heighten engagement of academics in the commercialization process
- Co-location of RINs within regional research and technology parks
- Funding for support staff to manage execution of new programs
- Expanding outreach to national and international organizations
- Ability to leverage federal and municipal funds for the benefit of clients

"The evidence is everywhere that a regional approach to achieving economic results is what works. Look at Waterloo, Ottawa, Dallas, Pittsburgh or any other community that's been successful in achieving a culture of innovation – they started with an intimate understanding of the local context. From there, it's all about being strategic and intentional, establishing informed and credible networks in place of gaps and silos, delivering clear value to stakeholders, and evolving with the needs of the community to achieve dynamic economic results."

#### Iain Klugman, President, Communitech



# Appendix A – RINs of Ontario

RIN	Description	Key contact
Accelerator Centre, Waterloo Research and Technology Park www.acceleratorcentre.com	<b>"Accelerating entrepreneurial success."</b> A corporation providing facilities and support services to qualifying technology business entrepreneurs looking to accelerate the commercialization of their product or service, and maximize their organization's potential.	Tom Corr, Ph.D, Executive Director
BioDiscovery Toronto www.biodiscoverytoronto.ca	<i>"Innovative research partnerships for health."</i> An organization linking ten of Toronto's internationally recognized biomedical research institutions for the commercialization of research <i>—"Linked for innovation."</i>	David Shindler, Ph.D, Executive Director
Eastern Lake Ontario Regional Innovation Network (elorin) www.elorin.ca	<i>"All together possible."</i> A champion of regional economic growth, through creation and management of a multi-stakeholder biobusiness network including industry, institutions and government; working to create opportunity for revolutions in bioenergy, biofibres and biomedical industries.	Shelagh McDonald, Executive Director
Greater Peterborough Region DNA Cluster www.dnapeterborough.ca	"Growing our Life Sciences Economy" A regional economic development initiative built on strategic alliances between private and public sector participants focused on commercializing regional DNA, forensics, life sciences and environmental innovation, building on local expertise in natural resources management.	Jay Amer, Director, Business Development & Communications
Golden Horseshoe Biosciences Network www.ghbn.org	<b>"Solutions for life."</b> A regional network of research organizations, companies, universities and economic developers focused on ensuring a strong and thriving environment in which biosciences and biotechnology can grow.	<ul> <li>Darlene Homonko, PhD, Executive Director</li> </ul>
Guelph Partnership for Innovation www.guelphinnovation.com	"Growing a life science community." A consortium of life science stakeholders with the vision of making Guelph one of the top five life science centres in North America, by coordinating of information sharing among life science and agri-food companies in Guelph and area, and fostering the development of Guelph as a leading centre for life science and agri-food research, development and commercialization through advocacy, education and communication.	Jim Wadleigh, M.Sc., Executive Director
Innovation Initiatives Ontario North (IION) www.commercializationnorth.ca (under development, pending full funding)	An expert-driven regional "go to" for innovation and commercialization at the public-private sector interface, in the sectors of bioproducts/bioenergy, health science, and environmental sustainability; with the goals of building a pan Northern Ontario-centric commercialization network; enhancing and diversifying the economic development of Northern Ontario; and acting as the entrepreneurial champion and informed gateway to public and private programs and services.	Robert Deline, Executive Director

RIN	Description	Key contact
OCRI Life Sciences	A catalyst for the growth of the local life sciences community, through networking activities, consortia building, support for technology commercialization, identification of market opportunities, information resources, sector advocacy and sector specific marketing initiatives at all levels of opportunity (local, regional, provincial, national and global).	Jeffrey Dale, President & CEO
Southwestern Ontario Bioproducts Innovation Network (SOBIN) www.sobin.ca	<i>"Harvesting new opportunities for industry."</i> An organization dedicated to advancing new bioproducts and finding new uses for biobased feedstock in manufacturing primarily in the automotive, chemical and energy industries, for the purpose of strengthening the economy of Southwestern Ontario.	Matthew McLean, Executive Director
Stiller Centre for Technology Commercialization www.stillercentre.com	<b>"We'll help bring your innovation to the market."</b> A Centre that generates synergy by bringing together great minds in the research, professional, medical and commercial sectors, to assist start-up technology-based companies in the process of bringing their innovation to the marketplace with services including market research, mentoring and operations analysis.	• Lee Smithson, General Manager
Western Greater Toronto Area Convergence Centre (WGTACC) www.wgtacc.com	A catalyst for the accelerated growth of an internationally significant Life Science and Technology Cluster in the Western GTA, fully integrated with the life science and related technology strengths of the province.	• Ulrich (Ulli) J. Krull, Ph.D, Chair
YORKbiotech www.yorkbiotech.ca	<b>"The power of convergence."</b> A catalyst organization harnessing the wealth of the GTA's intellectual and technical resources to promote economic success and growth of biotechnology and related industries as a key component of regional economic development.	<ul> <li>Robert Foldes, Ph.D, MBA, Executive Director</li> </ul>

# Appendix B – Case studies

## Case 1 – Promising new anticancer drug delivery

#### About the client

Constab Pharmaceutical is an early stage biotech company with a promising technology platform for anticancer drugs. They use alpha-fetoprotein as a carrier to deliver apoptosis inducers directly to cancer cells, avoiding healthy tissues. This technology may provide cancer patients with improved treatment outcome and reduced side effects.

#### Before connecting with the RIN

Constab was a promising company with a promising innovation, but with little drug development expertise and very few industry contacts. As a result it was struggling to find resources to support ongoing research and growth.

#### How the RIN is helping

Through its broad network, **YORKbiotech** connected Constab with important industry contacts and drug development consultants; then played a key role in structuring a proposal to secure funds from the MaRS-IRAP business mentorship program.

#### **Results to date**

Constab has been able to develop its pre-clinical and clinical strategy for its lead drug candidate, Aimpila, while improving its website and overall promotional capacity, leading to:

- An invitation to release preliminary results at the American Society of Clinical Oncology (ASCO) 43<sup>rd</sup> annual meeting in Chicago, June 2007, and
- Significantly expanded growth opportunities, with nine potential investors / pharmaceutical companies from Canada, the U.S. and Asia now under consideration.

"With limited human, material and financial resources, YORKbiotech has allowed us to access funds from the IRAP program that have been used to develop our pre-clinical and clinical strategy for our lead drug candidate Aimpila. YORKbiotech has also been helpful in connecting Constab with experts in the industry through its extensive network."

Stéphane Gagné, President and CEO, Constab Pharmaceutical

# Case 2 – Next generation athletic monitoring devices

#### About the company

S Decoder Corporation was incorporated in Canada in August 2006 by Dr. Douglas Stoddard, a sports medicine doctor in Toronto with an interest in endurance athletes and hot weather performance. The company seeks to become the first company to develop and market a portable, wearable, real-time monitoring device that analyzes sweat, plus provides heart rate monitoring functions, chronometer and possibly GPS functions, thus being positioned as the next generation of athlete monitoring and training devices.

#### Before connecting with the RIN

The company was a pure start-up. The founder was financing prototype development but had no business advisors.

#### How the RIN is helping

Initially **YORKbiotech** provided general consultation regarding corporate strategy. The RIN also edited key pieces of the company's marketing material, and provided introductions to six potential investment groups and several potential advisors/board members.

"My start up company, S Decoder, has gained valuable insights into business planning and presentation, as well as having been introduced to a variety of industry contacts that have proven useful as we grow our business. YORKbiotech has facilitated all this. Specifically, I have been afforded quite a bit of time for review of, and feedback on, both my PowerPoint presentation and my executive summary. I have also been introduced to several potential capital partners and consultants. In summary, YORKbiotech provides a valuable service to companies such as mine, and I am looking forward to our continued association."

> Douglas W. Stoddard, MD, M Sport Med, Dip Sport Med, ES Medical Director, S Decoder

## Case 3 – Evolutions in silicone for burn victims

#### About the client

Take Control Cosmedix Inc® (TCC) is a new approach – a hybrid of the Health Care and Cosmetics Industries Company – that's focused on revolutionizing the quality of life for those suffering from severe burns and skin disorders through silicone-based medical devices designed to camouflage disfigurations.

#### Before connecting with the RIN

The company was successful, but further investment and connections were required to advance the products to meet the needs of potential clients. Attending an "Innovation Night" actively marketed by **Golden Horseshoe Bioscience (GHBN)**, and sponsored by GHBN partner Golden Horseshoe Venture Forum, was key to opening doors.

#### How the RIN is helping

Following the Innovation Night, GHBN met with the company and worked with representatives from the City of Hamilton to evaluate the fit of available programs. A connection with the Ontario Centres of Excellence (OCE) was quickly established, along with a connection to a university researcher through which the company can develop and launch an R&D program.

#### **Results to date**

GHBN is assisting with an application for OCE funding, as well as facilitating introductions for the company at key burn centres in Ontario, including Sunnybrook Health Sciences Centre in Toronto.

"My company has been in the research stage for seven years, and now thanks in large part to Golden Horseshoe Bioscience Network (GHBN), we are moving in the direction of a full-scale research and development program while building our own network of industry contacts. GHBN has effectively taken the guesswork out of how to grow my business, by helping to decipher government programs and connecting me to the right people within the right organizations at every stage along the way. I look forward to a continuing relationship with GHBN and highly value their assistance to date."

> Brandy Gowling CEO / Founder, Take Control Cosmedix Inc®

## Case 4 – Establishing a new Canadian sector in Eastern Ontario, in biofibres

#### About the client

Stonehedge Bio-Resources, a research-based company, was focused on bio-prospecting plant genetics, and has now transformed its focus by commercializing its research into a hemp bio-refinery for Ontario.

#### Before connecting with the RIN

While Stonehedge saw great potential for developing hemp varieties, the company was limited by lack of funding, a commercial business case and industry connections.

#### How the RIN is helping

elorin has assisted Stonehedge as follows:

- Funding applications to federal and provincial programs
- Securing \$55,000 from the Eastern Ontario Development Fund for a business case including genetics capture, market development and partnership development which demonstrated significant potential to create value in the marketplace
- Supporting 3 European fact-finding missions on biofibres, providing crucial contacts
- In identifying researchers at Queen' University for mutually benefiting collaborations
- Organizing an annual 'Biofibres International Symposium' attended by key stakeholders

#### **Results to date**

Stonehedge is now in a position to exploit the opportunity identified in the business case. The company is currently negotiating with two world-class partners as a direct result of elorin's support and has also identified appropriate process technology as a result of the European fact finding missions.

With overall validation of the economic potential of the biomass capabilities of hemp to create value in the marketplace, Stonehedge announced its intention construct a hemp bio-refinery in Eastern Ontario, effectively creating an <u>entirely new sector</u> in Canada. The initial bio-refinery facility will create more than 30 full time jobs, draw feedstock from over 200 farmers, and position the region for multiple secondary manufacturers.

"The industrial potential of the Upper Canada Hemp genetics will now be realized through Stonehedge's transformation into a commercial venture. Elorin has been pivotal in helping Stonehedge with our corporate strategic shift."

> Bryan Emmerson President and CEO, Stonehedge Bio-Resources Inc.

## Case 5 – The next generation water testing system

#### About the client

Pathogen Detection Systems (PDS) is an early stage company that is commercializing patentpending technology for improved water testing, primarily for *E.coli* and total coliform bacteria. The testing system, developed in the wake of the Walkerton tragedy, dramatically decreases the time required to generate a test result and eliminates all visual interpretation to fully automate the process. PDS has successfully closed initial rounds of financing with both angel investors and venture capital funds.

#### Before connecting with the RIN

Although fully capitalized to carry out its research and product development activities, PDS did not have the in-house resources necessary for developing the go-to-market and regulatory approval strategies to support its next round financing goals.

#### How the RIN is helping

elorin assisted PDS in the following ways:

- Made PDS aware of funding mechanisms available, specifically the RIN-IRAP Mentorship Program.
- Secured \$60,000 in financing under the RIN-IRAP Mentorship program to fund several consultants in the areas of market development, strategic business planning, regulatory approvals and advanced programming.

#### **Results to date**

PDS is in the process of developing a business plan to support its next round of financing. The consultants engaged under the RIN-IRAP Mentorship Program have played a key role in providing data and expertise to support these activities.

"Every early stage company faces the challenge of having the necessary resources to execute successfully in all functional areas. Elorin was vital to securing the RIN-IRAP mentorship funds that allowed us to focus on very specific strategic aspects of the business. We are very pleased with the results."

> Dr. Peter Gallant President & CEO, Pathogen Detection Systems, Inc.

## Case 6 – International Consortium on Anti-Virals (ICAV)

#### About the client

The International Consortium on Anti-Virals (ICAV) is a large-scale international consortium established in the wake of the SARs epidemic to discover and develop therapeutic interventions for viral infectious diseases, including pandemic influenza, HIV/AIDS, hepatitis, Dengue fever, rotavirus infection, and hemorrhagic fevers like Ebola and Marburg.

#### Before connecting with the RIN

The vision of Dr. Jeremy Carver, President and CSO, ICAV required the services of an organization knowledgeable in the business of anti-virals, well connected at the regional level, and knowledgeable about government programs to become established.

#### How the RIN is helping

**Greater Peterborough Region DNA Cluster** was instrumental in assisting with early stage activities to establish ICAV at the DNA Building at Trent University in Peterborough. The DNA Cluster continues to promote ICAV's goals and partnership opportunities, in addition to other support activities and development of international symposia including Paris in 2005. The DNA Cluster has also opened doors to significant federal funding opportunities for ICAV, including \$2M from the Ministry of Health.

#### Results to date

ICAV has been able to hire three additional staff members while making significant progress toward in its research targeting host functions critical to the infectivity of threatening viruses. By linking scientists and others from universities, institutes, hospitals and industry from around the world, ICAV is facilitating knowledge transfer through effective use of limited resources and global expertise, as well as accelerating the development and delivery of drugs that target viral diseases worldwide.

"The International Consortium on Anti-Virals has benefited greatly from its association with Trent University and the Peterborough Regional DNA Cluster. The resident business development and government relations expertise has been essential in bringing ICAV to its current position – poised for launching the innovative ICAV model."

> Dr. Jeremy Carver CEO & Chief Scientific Officer, ICAV

## Case 7 – Legumes: Food of the Future

#### About the client

Dr. Neil Emery has focused his research on chemistry and function of a family of cytokinins, and the promotion of fruit set and seed development. Using Mass Spectrometry he has worked to differentiate between "strong" and "weak" cytokinin profiles. Study of the genes and proteins for these hormones and their manipulation will help exploit them, moving legumes from the weak to strong growth hormone profile to improve yields

#### Before connecting with the RIN

Before connecting with **Greater Peterborough Region DNA Cluster**, productivity in Dr.Emery's lab had been limited by the amount of resources available to support on going research projects.

#### How the RIN is helping

Through the RIN's networks including the Greater Peterborough Area Economic Development Corporation, Dr. Emery has been connected with the Oat and Barley Council, and agri-food experts at the University of Guelph. The RIN has also been instrumental in acquiring tentative commitments from key private sector food processing companies, and is currently coordinating applications relevant to further work for submission to NSERC, OMAFRA (NDRP), as well as OGI.

#### Results to date

Research utilizing specific seeds is underway in the DNA Building's state-of the art Aurora Greenhouse.

"The Peterborough DNA Cluster RIN has been essential in inspiring me to think commercially and in facilitating connections between my research program and commercial partners. They have encouraged me to branch out from my basic research and have identified potential connections with industry partners. They have also initiated, executed and followed-up on meetings with a number of potential partners and industry connections and have provided an understanding of private sector needs and communication skills that I simply do not possess. I am currently in the process of writing grant proposals in partnership with cereal and seed companies and I'm very hopeful that we will succeed, especially given the efforts of everyone involved, and particularly the critical participation of the DNA Cluster RIN."

> Dr. Neil Emery Director, Watershed Ecosystems Graduate Program

## Case 8 – New partnerships spell growth for leading pharma company

#### About the client

Merck Frosst of Merck & Co., Inc. is one of Canada's leading research-based pharmaceutical companies and one of the largest integrated pharmaceutical companies in Canada.

#### Before connecting with the RIN

The new director was not aware of the community, ongoing research or companies.

#### How the RIN is helping

With in-depth awareness of the community, companies and ongoing research projects, **OCRI** facilitated several timely and high quality introductions to assist the company in establishing partnerships through which it could advance its innovation.

#### Results to date

Merck Frosst has two partnership opportunities currently under consideration.

"I would like to commend OCRI for their work and support of the life sciences sector. Had it not been for the tireless work that was done setting up quality one-on-one meetings and chaperoning me throughout the Ottawa region earlier this summer (June 2007), I would not have made such timely contact with the institutions and companies that I visited. As I recall OCRI helped set up nine meetings over two days. I can tell you that based on these quality introductions; the Merck External Scientific Affairs team is currently following up on at least two potential partnership opportunities with different groups. Therefore, I consider the work being done by OCRI as being critical to any initiative that seeks to foster a mutually beneficial partnership between academia, biotech and pharma. I also recall that OCRI was proactive in meeting with the folks from Merck while at BIO2007 and promoting the public and private Ottawa area research programs."

> Steven Xanthoudakis Director, Licensing and External Research - Canada, Merck Frosst Canada

## Case 9 – Strategic business consulting assists with growth of biotech firm

#### About the client

NeurAxon is a multi-million dollar biotech firm and a leader in discovering and developing next generation pain therapeutics focused on the inhibition of neuronal nitric oxide synthase (nNOS), an enzyme involved in modulating pain and central nervous system neuronal sensitization.

#### Before connecting with the RIN

NeurAxon required strategic business consulting to effectively assess the issues and opportunities of their competitive position.

#### How the RIN is helping

Recognizing the need for consulting in the areas of business-building, financing, performance and productivity, the **Western Greater Toronto Area Convergence Centre (WGTACC)** makes the "Consulting Days" program available to clients including NeurAxon – free of charge – through a contract arrangement with Accelteon Partners Inc.

#### **Results to date**

NeurAxon's participation in the program provided key insights into addressing business challenges and making connections to resources capable of helping the company to successfully build its business.

"Accelteon conducted a thorough organizational assessment of our company, including competitive and market strategies. Utilizing their innovative thought processes they identified a potential issue that could have adversely effected our competitive position. Accelteon developed a strategy to resolve the anticipated challenge, and worked with the management team in initiating contact with the appropriate resources. Our engagement with Accelteon has helped us get closer to achieving the desired results for our investors."

John Andrews, President, Neuraxon

## Case 10 – RIN networks help secure innovation-based future for rural economies

#### About the client

Pyramid Farms Ltd., a greenhouse vegetable operation and Lycoland Farms Ltd., a cash crop operation were interested in exploring the possibilities of a biomass feed stock that would provide a local solution to Lycoland's need for a new crop and Pyramid's need to stabilize energy costs.

#### Before connecting with the RIN

Facing rising energy costs and a downturn in crop profitability, the two companies needed funding and connections to scientifically evaluate the potential of a biomass feed stock to address their acute challenges to growth.

#### How the RIN is helping

SOBIN provided connections to their network of industry and university partners, with whom the two organizations are now collaborating. SOBIN also assisted with a \$3M funding application through the federal Agricultural Bioproducts Innovation Program (ABIP).

#### **Results to date**

In conjunction with SOBIN network partner University of Guelph, Ridgetown Campus, Pyramid and Lycoland are participating in an exciting biomass feed stock initiative designed to stabilize energy costs through locally grown products. This initiative has the potential to significantly advance the production and profitability of both companies, while simultaneously creating an innovation-based model to broaden the capacity of rural economies across Canada and internationally.

"Working with SOBIN has again proven the value of collaborating with like-minded organizations. Much more insight and knowledge can be gained by bringing people from different perspectives together and focusing on a common goal!"

> Dean Tiessen, Pyramid Farms Ltd., and David Epp, Lycoland Farms Ltd.

## Case 11 – Providing pure water and disinfection without chemicals

#### About the client

Purification Research Technology Inc (PRTI) is a Guelph company in start-up mode with a breakthrough technology for purification of home, commercial and industrial water, as well as a new, natural disinfection method for food processing companies.

#### Before connecting with the RIN

After the key technology discovery, PRTI required strategic business consulting to identify and assess potential markets, and to determine an appropriate business model.

#### How the RIN is helping

**Guelph Partnership for Innovation (GPI),** MaRS Landing and BioEnterprise provided advice, encouragement and connections, as well as mentorship and training programs to help accelerate market penetration in the agri-food business. Feature exposure at a GPI Networking Breakfast resulted in market channel connections and an introduction to Agriculture and AgriFood Canada, which in turn resulted in meeting with a delegation from China. **GPI** also connected PRTI to Viatech, a service that allows entrepreneurs to present business plans and receive immediate feedback, advice and connections to potential partners. **GPI** additionally provided access to a GPI Mentorship program that resulted in further business plan development and acquiring the needed marketing and sales tools. GPI's networking opportunities also led to financing for construction of prototypes to be used for commercialization.

#### **Results to date**

Presently, PRTI is tooling up for the production of key components with assembly of systems to occur in Ontario, as well as seeking channel and/or funding partners in the various market segments. Technology transfer opportunities to various other Countries (such as China and India) are also being explored at this time.

"We feel GPI is an essential and valuable resource for business in Guelph. They have provided PRTI with the necessary networking and learning opportunities, plus critical feedback that has allowed us to move forward."

> Laura Greenway President, Purification Research Technologies Inc.

# Case 12 – Solving urgent global health issues through the science of fats and oils

#### About the client

CoaGel Corp. a division of Fractec Inc., is a Guelph technology company in start-up mode with a breakthrough solution for the food industry. CoaGel is currently working with global and domestic food companies to commercialize a new shortening replacement that addresses obesity, diabetes and cardiovascular disease by eliminating trans fat and dramatically reducing saturated fat and calories in baked goods, while maintaining taste and other important food quality factors. The process involves heart-healthy liquid vegetable oils like locally grown soybean and canola oils which are transformed into a firm material called Coavel, which can be used to replace ordinary shortening, margarine and baking fats commonly used in the food industry.

#### Before connecting with the RIN

After the key laboratory-scale discovery, CoaGel Corp. required strategic business consulting and financing to begin working toward a new processing facility in Guelph, and to determine an appropriate business model.

#### How the RIN is helping

**Guelph Partnership for Innovation (GPI)** and a range of community partners provided advice, encouragement and connections to accelerate the expensive process of reaching proof-ofconcept and early market penetration in the food business. GPI further provided access to a GPI Mentorship program that resulted in an effective business and operational plan along with new regional business linkages and opportunities. The business plan was used to secure sizeable financing, as well as partnership agreements with large food companies that are currently testing the product on a large scale. GPI also assisted in funding for Fractec to attend and participate in business partnering opportunities at trade shows including World Congress on Industrial Biotechnology and Bioprocessing and the IFT Food Expo.

#### **Results to date**

Financing was secured for a \$5M pilot processing facility. Utilizing the skills and production resources of the Guelph Food Technology Centre for scale-up, operations are currently underway to produce the large quantities of Coavel trans free shortening requested for testing by food companies. With demand for the Coavel product far exceeding sales targets, the company will relocate in September 2008 to a new 20,000 sq ft facility in Guelph, employing up to 30 people.

"Fractec is on the path to commercial success. This success and its positive impact to Ontario agriculture is a direct result of the valuable support provided by the Guelph Partnership for Innovation and its people. Thank you for (the quickly executed Mentorship program) and for eliminating barriers faced by Ontario technology start-up companies like Fractec. GPI has played an important role in fostering research, innovation and commercial success in Ontario."

Steve Bernet, VP, Fractec Research & Development Inc.

## Case 13 – Implementing e-partnering software

#### How the RIN is helping

BioDiscovery Toronto is inventing new ways to facilitate business relationships – a critical function for RINs. One of the challenges for setting up meetings with potential business partners is to find a way, for instance during hectic conferences, to have quality time with potential business partners. Many participants at meetings want to speak to a potential licensee or company but cannot find the appropriate contact person or a time to meet. That's where BioDiscovery Toronto's e-partnering system comes into play. The epartnering software system gives conference attendees easy to use online e-partnering capabilities. The software helps participants network and partner: market technologies, discuss business opportunities and promote companies to potential partners. Clients can make appointment requests in real time and these meetings are confirmed instantly via email.

#### **Results to date**

So far BioDiscovery's system has been used at BioFinance Early Phase 2006, BioFinance Toronto 2007, and for a regional US-Canada partnering event sponsored by the Golden Horseshoe Bioscience Network, YORKbiotech and others. The feedback from industry has been terrific, and BioDiscovery will expand the use of this system to encourage the development of Ontario business partnerships and collaborations including BioFinance 2008 and at other upcoming events.

"With BioDiscovery Toronto's new E-Partnering system I was able to schedule my business meetings effectively at BioFinance 2007 and not miss conference presentations that I was interested in attending. BioDiscovery Toronto's E-Partnering system definitely enhanced my conference experience."

> Tom Waddell, PhD, MBA, Director, Research and Developmen, Pro-lab Developments Inc.

# Appendix C – Community testimonials

#### Dynamic RIN creates opportunities for Eastern Ontario stakeholders

"Elorin has changed the way we think about partnerships and projects. Through elorin we have access to economic development agencies, SMEs, commercialization support and the larger provincial network of RINS, making it far easier for us to quickly identify projects, possible partners and mutual interests. elorin's focus on building regional prosperity aligns with our institutional strategic plan that will see Queen's bring its education and research programs to bear in helping our various communities – local, provincial, national and global – meet contemporary challenges. Queen's is actively building a cluster of interdisciplinary research and teaching activity around issues relating to a sustainable bioeconomy, and elorin provides a platform to showcase these developments."

> Dr. R. Kerry Rowe Vice-Principal (Research), Queen's University

#### High bar set for new RIN

"The single most important new organization in realizing Peterborough's third economic era is the Peterborough Region DNA Cluster. It will provide the organizational structure – the new social institution – that will provide the partners within the cluster and related economic activities, the support they require to reach their potential. The success of the Cluster will determine, in many different ways, the future of the Peterborough region."

> Thomas Phillips Ph.D. "The Economic Impact of the Peterborough Region DNA Cluster", May 2004

#### RIN considered key to Peterborough's economic future

"Peterborough's RIN, the Greater Peterborough Region DNA Cluster, provides an important link between researchers, public institutions, and the private sector. The DNA Cluster provides a wide range of services to the university and its partners that we would have a hard time undertaking on our own. In short, the Cluster is an innovation support platform that enhances this region's contribution to the Province's innovation strategy"

> Dr. James D. A. Parker Associate Vice President (Research), Trent University

## RIN as "gateway to innovation"

"YORKbiotech serves as a gateway to innovation which drives ideas that lead to cycles of renewal, reinvention, and industry convergence. The RIN's strategic value is in terms of new knowledge, new industrial application and potential for economic benefit or enhanced quality of life. We feel that investment in YORKbiotech will lead to the creation of new intellectual property as well as collaboration opportunities with International, Federal, Provincial-Territorial, and Regional Governments and industry and academia. As York Region develops its industry cluster strategy, YORKbiotech and other RINs play a prominent role to promote sector growth, create new industry opportunities and offer major economic and social gains."

Bryan W. Tuckey Commissioner, Planning and Development Services, The Regional Municipality of York

#### RIN as catalyst of "entrepreneurial culture"

"YORKbiotech plays an important role in positioning York University as a research-intensive organization that is open to productive collaborations with the healthcare industry. YORKbiotech helps to provide a window to industry needs and partnership opportunities in the life science space. We also look to YORKbiotech to help us catalyze an entrepreneurial culture at York University. One fabulous example is the Healthcare and Biotechnology Venture Challenge that is organized by YORKbiotech together with our Schulich School of Business and where teams of scientists work together with MBA students to develop commercialization plans around innovative ideas and compete for cash prizes. Finally, it was through our involvement with YORKbiotech that the idea for a National Centre for Medical Device Development (NCMDD) emerged. We expect that YORKbiotech will play a significant role in the commercialization activities of NCMDD and thereby facilitate the development of innovations arising from the efforts of York University researchers. These are all concrete, tangible benefits arising from YORKbiotech."

> Dr. Stan M. Shapson Vice President Research & Innovation, York University

#### RIN program helps companies raise profile to attract investors

"Variation Biotechnologies Inc. is pleased to acknowledge the important role that OCRI Life Sciences has contributed to the company's success. We were honoured to have been selected among Canada's Top 10 Life Sciences Companies, a program delivered by OCRI which increased our profile and credibility with tier-one venture investors, and initiated the introductions to our US investors which closed at \$35 Million USD. In addition the company continues to receive support through connections, and supporting programs which OCRI offers such as Biojobs.ca for talent recruitment."

> Dr. Francisco Diaz-Mitoma CEO, Variation Biotechnologies Inc.

#### **RIN helps decipher process streams**

"Our recycled plastics business is characterized by the need for accurate and speedy execution of our business plans in a low margin marketplace. Technological innovation provides our business with cost advantages and product quality advantages. Western's Research Park in Sarnia-Lambton has helped us discover several technological advantages that are being considered for new products and processes. SOBIN has helped to play a role in understanding the use of certain process streams in bioproducts such as ethanol. Work is continuing at Western with support from an OCE Collaborative Research Grant. The specifics of our projects are covered by non-disclosure agreements."

> Keith Bechard President, Entropex

#### RIN plays key role in development of new centre of excellence

"The development of a centre of excellence focused on agriculture as a source of renewable energy is a high priority for the Municipality of Chatham-Kent and we are very pleased that SOBIN is working hard to see that this is fulfilled. SOBIN has provided critical input into this concept since the very beginning and has taken a very important leadership role in ensuring that the Centre for Agricultural Renewable Energy and Sustainability (CARES) becomes a reality within our region."

> Ron Anderson Agricultural Coordinator, Municipality of Chatham-Kent

# Appendix D – Key network partners

## **Accelerator Centre**

- Canadian Innovation Centre (CIC)
- Centre for Business, Entrepreneurship and Technology (CBET)
- Communitech Technology Association
- Infusion Angels Innovation Centre (IAIC)
- Schlegel Centre for Entrepreneurship (Wilfrid Laurier University)
- University of Waterloo

## **BioDiscovery Toronto**

- Centre for Addition and Mental Health
- City of Toronto
- Government of Canada
- MaRS Discovery District
- Mount Sinai Hospital
- Ontario Institute for Cancer Research
- Ryerson University
- St. Michael's Hospital
- Sunnybrook Hospital
- The Hospital for Sick Children
- Toronto Economic Development
- Toronto Rehab
- University Health Network
- University of Toronto

# Eastern Lake Ontario Regional Innovation Network (elorin):

- Aztech Associates
- BIOCAP Canada Foundation
- BioEnterprise Corporation
- Bioniche Life Sciences
- County of Lennox & Addington
- DuPont Canada
- Loyalist College
- Natural Capital Resources
- Octane Orthobiotics
- Ontario Agri-Food Technologies
- Ontario Hemp Alliance
- PARTEQ Innovations
- Performance Plants
- Queen's University
- Quinte Economic Development Corporation
- Scott Industrial Services
- Stonehedge BioResources

## Golden Horseshoe Biosciences Network (GHBN)

- Advanced Food and Materials Network (AFMNet)
- AllerGen NCE for Allergy / Immunology
- BioEnterprise
- Brock University
- Buffalo Niagara Economic Development Corporation
- Canadian Obesity Network (CON)
- City of Hamilton
- Department of Foreign Affairs and International Trade Canada (DFAIT)
- Golden Horseshoe Venture Forum (GHVF)
- Hamilton Health Sciences
- Health Technology Exchange (Htx.ca)
- London Tech Alliance
- MaRS Landing
- MaRS Discovery District
- McMaster University
- Mohawk College
- Niagara College
- Niagara Regional Economic Development Corporation
- OMAFRA
- Ontario Agriculture and Food Technologies (OAFT)
- Ontario Centre for Environmental Technology Advancement (OCETA)
- Ontario Exports
- Ontario Wine Council
- Region of Halton
- St. Joseph Health Care
- Toronto Angel Group (TAG)
- Toronto Biotech Initiative (TBI)
- Toronto Venture Group (TVG)
- Trillium Medical Technology Association
- Venture Niagara

# **Greater Peterborough Region DNA Cluster**

- Canadian Centre for Modeling
- Fleming Centre for Alternative Wastewater Treatment
- Greater Peterborough Area Business Advisory Centre
- Greater Peterborough Area Economic Development Corporation
- Innovation Synergy Centre Markham
- Institute for Watershed Science (Trent)
- International Consortia on Anti-Virals
- MaRS Discovery District
- MaRS Landing
- National Angel Organization
- Natural Resources DNA Profiling and Forensics Centre
- OCETA
- Ontario East Economic Development Corporation
- Ontario Ministry of Natural Resources
- Sir Sandford Fleming College
- Trent Centre for Materials Science
- Trent University
- Worsfold Water Quality Centre (Trent)

# **Guelph Partnership for Innovation**

- Advanced Foods and Materials Network (AFMnet)
- Agriculture and AgriFood Canada (AAFC)
- Binbrook Holdings (a VC company
- BioEnterprise
- Coavel<sup>™</sup>
- City of Guelph
- Colley Insurance
- Communitech (Waterloo)
- Community Investment Support Program (CISP)
- Guelph Chamber of Commerce
- Deloitte.
- Elanco
- Gowlings
- Guelph Hydro Inc.
- KPMG
- MaRs Landing
- Miller Thomson LLP
- Ontario AgriCentre Ltd
- Ontario Agri-Food Technologies
- Ontario Institute of Agrologists
- Ontario Ministry of Agriculture and Food (OMAFRA)
- Playtypi Designs
- RBC Financial Group
- Syngenta
- TD Canada Trust
- University of Guelph
- University of Guelph Business Development Office
- ViaTech

# Innovation Initiatives Ontario North (IION)

- Algoma University College
- BioAuto Council
- BIOCAP Canada Foundation
- BioEnterprise
- Canadian Forestry Service (NRCan)
- Canadian Green Science and Technology Network
- City of Sudbury
- FPInnovations
- GreenCore Composites (University of Toronto)
- Industry Canada
- Lakehead University
- Laurentian University
- Mikro-Tek
- Nipissing University
- Northern Centre for Advanced Technology Inc. (NORCAT)
- North Bay Economic Development Corporation
- Northwestern Ontario Innovation Centre
- Ontario Ministry of Natural Resources
- Ontario Ministry of Northern Development and Mines
- Ontario Value Chain Initiative (Hybrid Chemistry Council)
- Sault Ste-Marie Economic Development Corporation (SSMEDC)

- Sault Ste-Marie Innovation Cantre
- Science Enterprise Algoma
- Sudbury Economic Development Corporation
- The Research Park: London | Sarnia-Lambton (Bioindustrial Innovation Centre)
- Timmins Economic Development Corporation
- Upper Lakes Environmental Research Network

## **OCRI Life Sciences**

- BIOTECanada and the other BioAccord organizations from across Canada (BC Life Sciences, BioAlberta, AgWest Bio, BioQuebec, BioNova, PEI Bioalliance, NATI)
- Carleton University
- · City of Ottawa
- Government of Canada, NRC, Department of Foreign Affairs and International Trade, including several consulates across the world, Industry Canada
- Health Technology Exchange (HTx)
- Hong Kong Trade Commission
- Invest in Germany
- MaRS Discovery District
- Montreal In Vivo
- Neurochip Development Initiative (NDI)
- Ontario Bioproducts sector innovation networks
- Ottawa Technology Transfer Network (OTTN)
- Queen's University
- University of Ottawa and their health research institutes (OHRI, Heart, Eye, Cancer, Stem Cell etc.)

## Southwestern Ontario Bioproducts Innovation Network (SOBIN)

- Acrolab Ltd.
- AGRIS Co-op
- BioEnterprise Corporation
- Bluewater Sustainability Initiative
- Canada Miscanthus Development Network
- Centre for Agricultural Renewable Energy and Sustainability (CARES)
- Dow Chemical Inc.
- GreenField Ethanol Inc.
- Lambton College
- Municipality of Chatham-Kent
- OMAFRA
- Ontario Agri-Food Technologies
- Ontario BioAuto Council
- Ontario BioIndustrial Innovation Centre
- Ontario Chemistry Value Chain Initiative
- Sarnia-Lambton Economic Partnership
- Soy 20/20
- St. Clair College
- The Research Park: London | Sarnia-Lambton
- University of Guelph, Ridgetown Campus
- University of Windsor
- Wellington Polymer Technologies Inc.
- Windsor- Essex Development Commission

# Stiller Centre for Technology Commercialization

- City of London
- Fanshawe College
- Lawson Health Research Institute
- London Economic Development Corporation
- London Health Sciences Centre
- London Regional Cancer Centre
- MaRS Discovery District
- National Research Canada: Integrated Manufacturing Technology Institute
- Robarts Research Institute
- St. Joseph's Health Centre
- TechAlliance
- The Research Park: London | Sarnia-Lambton
- University of Western Ontario

## Western Greater Toronto Area Accelerator Centre (WGTAAC)

- BIOTECanada
- Biotechnology Human Resource Council (BHRC)
- BIOENTERPRISE (Guelph)
- Brampton Board of Trade
- Communications and Information Technology Ontario (CITO)
- Deeth Williams Wall LLP
- Focal Point Research
- Health Technology Exchange (HTX)
- Humber College Institute of Technology and Advanced Learning
- London Cluster Consortium
- MaRS Discovery District
- MaRS Landing (Guelph)
- Mississauga Board of Trade (MBOT)
- Mississauga Technology Association (MTA)
- Mississauga Technology Business Accelerator (MTBA)
- Northern Ontario Biotechnology Initiative Consortium (NOBI)
- Passionate Web Creations
- Sheridan College Institute Technology and Advanced Learning
- Sheridan Park Association (Mississauga)
- Toronto Biotechnology Initiative (TBI)
- Toronto Board of Trade (BOT)
- Toronto Venture Group (TVG)
- The RnD Team: Government-Based Funding for Industry-Based R&D
- University of Toronto at Mississauga (UTM)
- Vitesse Re-Skilling(TM) Canada
- Women's Executive Network (WXN)

# YORKbiotech

- Academy of Applied Pharmaceutical Sciences
- Cardiomed Supplies Inc.
- Cassels Brock & Blackwell LLP
- City of Vaughan
- Constab Pharmaceutical Inc.

- Dalton Pharma Services Inc.
- Gardiner Roberts LLP
- Gowling Lafleur Henderson LLP
- HUB International Ltd.
- IBM Canada Ltd.
- MaRS Discovery District
- Markham-Stouffville Hospital
- MEDEC
- Pharmax Ltd.
- PharmEng Innovations
- RBC Royal Bank
- Regional Municipality of York
- sanofi pasteur Ltd.
- Schulich School of Business
- Seneca College of Applied Arts & Technology
- Southlake Regional Health Centre
- Sunnybrook Health Sciences Centre
- The Health Technology Exchange (HTX)
- The Royal Victoria Hospital
- Town of Aurora
- Town of Markham
- Town of Newmarket
- Town of Richmond Hill
- Trillium Medical Technology Association (TMTA)
- VisualSonics Inc.
- Walsh Medical Devices Inc.
- York Central Hospital
- York Medtech Partners Inc.
- York Region District School Board (YRDSB)
- York University