



Guelph: It's all here for PRTI

It was the University of Guelph with its research collaboration and the city of Guelph's networking opportunities that drew Laura Greenway, (pictured at left) President of Purification Research Technologies Incorporated (PRTI), to develop and grow the company in the city. Now, the Montreal native feels at home living in Guelph – attracted by its green landscapes, bustling downtown and forward-thinking nature – and is confident in the decision to choose Guelph as the home of the growing business.

PRTI is dedicated to researching, developing and commercializing water and air disinfection technologies world-wide. Proximity to the University, one of the leading research institutions in Canada, has proved indispensable for the research and development of the company. The city of Guelph also boasts a rich business-support infrastructure, because of government agencies headquartered at Guelph, including the Ontario Ministry of Agriculture, Food and Rural Affairs, Agriculture and Agri-Food Canada and the Ministry of the Environment. The presence of innovation and commercialization focused entities, such as Guelph Partnership for Innovation, BioEnterprise and MaRS Landing also are great assets for start-up companies.

"I highly recommend Guelph to developing businesses," says Greenway. "It offers the credibility of doing work with the University and not many businesses are aware of the ability to network with the different departments and the global contacts that can be formed here."

Currently, the company is focused on refining a concentrated product called a Central Purification System, which is ideal for residential, commercial and agricultural disinfection applications and water purification purposes. The system is designed to disinfect water (removing bacteria and other contaminants), making the water perfect for drinking, or applying it in a variety of market applications from food safety to medical use.

www.prtiglobal.com

Quality of life

- Major urban centre within minutes of Ontario's scenic countryside
- Attractive cost of living – over 1/3 less than Toronto's
- Ranked in the Top 20 Best Places to Live in Canada in 2008 by Money Sense
- Home to Oktoberfest – world's 2nd largest Bavarian festival
- City of Waterloo named "Top Intelligent Community" of the world by Intelligent Community Forum (2007)

Strategic location

- Located one hour west of Toronto on Hwy 401, Canada's superhighway
- Population 635,000 – one of Canada's fastest-growing regions
- Multilingual and multi-ethnic population
- Within a day's drive of 131 million consumers
- Proximate to three US/Canada border crossings
- Home to Region of Waterloo International Airport with daily service to Detroit, Ottawa and Calgary
- Less than one hour to Canada's largest international airport (Toronto)

Using technology to predict pain



With more than 30 years of experience in the field, a leading German-based company has chosen Waterloo Region for its first North American sister company.

Human Pharmacodynamic Research (HPR) systematically studies the biochemical and physiological effects of pain medication on the human brain on a commercial scale. HPR's President and Chairman of the Board, Dr. Klaus Schaffler, was attracted to the region because of its strategic location, which allows him to work with world-class universities and be a part of the new University of Waterloo School of Pharmacy as a research professor.

As an entrepreneur in his field of research, Schaffler is also looking forward to working with graduates from the University of Waterloo and business students at Wilfrid Laurier University to encourage them to look at commercialization of research opportunities in the pharmaceutical industry.

He sees Waterloo Region becoming an important centre for pharmaceutical research and development in North America.

"Waterloo Region provides an ideal environment to improve our computer intensive technologies for pain research and engage in novel basic research. The ability to be close to other world-leading technology businesses is exciting. The potential for research, innovation and collaboration is great!"

www.hpr-pharma.com

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Guelph-Waterloo Partnership in Biotechnology

An Ontario Biotechnology Cluster Innovation Program Initiative



Ontario



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Showcasing Biotech in Guelph-Waterloo Region

Ontario, Canada



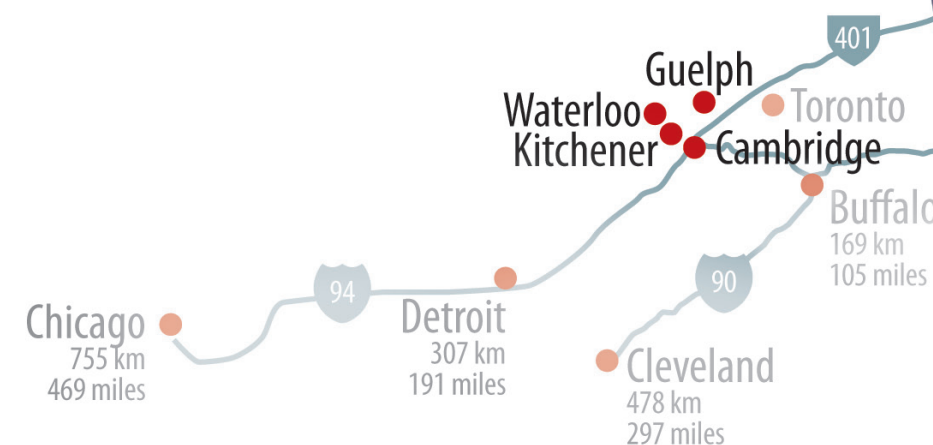
The Guelph-Waterloo Region is characterized by world-class post-secondary and research institutions, a spirit of entrepreneurship and technology convergence in high-tech, manufacturing, and agriculture and food sciences. It is these unique strengths that have led to the growth of many of the region's global players.

Inside this edition, read more about the people, research and companies contributing to the prosperity of this exciting biotech area...

Guelph and Waterloo Region

Home to technology breakthroughs, innovative discoveries and successful commercialization

- Agfa HealthCare
- Bayer CropScience
- Elanco Animal Health
- Monsanto
- Northern Digital Inc. (NDI)
- Siemens Hearing
- Cargill
- Research In Motion (RIM)



About Guelph-Waterloo Partnership in Biotechnology (GWPB)

The development of the biotech industry in Guelph-Waterloo Region (includes Cambridge, Guelph, Kitchener and Waterloo) consists of a consortium of life science stakeholders from government, industry and academia. The partnership recognizes the importance of linking Guelph's traditional strengths in biological sciences and agri-food with Waterloo Region's strengths in physical sciences, engineering and information technologies.



Industry sectors

- Agritechology
- Biotechnology
- Information Technology
- Nanotechnology
- Veterinary Sciences

DNA barcoding: Changing the way we look at life

The University of Guelph's exceptional strength in the biological sciences drew Dr. Paul Hebert (pictured at left) to Guelph. Hebert is the well-known founder of DNA barcoding – a system that uses a short portion of cytochrome c oxidase 1, a gene present in all multi-cellular organisms, to build a global identification system for life.

Hebert's discovery is revolutionizing the study of biological diversity and has led to establishment of the Guelph-based Biodiversity Institute of Ontario (BIO), which he directs. The Institute adds to the city of Guelph's already impressive roster of life-science organizations, such as Syngenta Crop Protection, Semex Canada and Maxxam Analytics. BIO seeks to protect and classify all species on the planet by gathering barcode sequences that are globally available through the

web-based Barcode of Life Data System.

While BIO has led the city and the University of Guelph to gain international recognition as the world centre for species identification, Hebert points to one aspect of the University that makes it the best in the country for an organization such as BIO – its students.

"[Our students] are very smart, industrious and focused on biology," says Hebert. "There is no university in Canada that attracts more students interested in biological diversity, and that is our business."

www.biodiversity.uoguelph.ca



Formulating intelligent and non-invasive medicines

The opportunity to be fully engaged as an academic researcher while bringing promising discoveries to market is what attracted Dr. Marianna Foldvari (pictured at left) to the University of Waterloo School of Pharmacy and Waterloo Region.

As the Canada Research Chair in Bionanotechnology and Nanomedicine and a professor of pharmaceutical sciences at the school, Foldvari is focused on creating novel bionanotechnologies to deliver drugs. Instead of using traditional hypodermic needles, where drugs are administered into the body invasively, she's working on ways to transport medications and vaccines painlessly through the skin, to provide the optimum dose exactly where needed.

Author of more than 150 publications and inventor of 12 patents and patent applications, Foldvari has founded two spin-off companies – PharmaDerm Laboratories, while a professor at the University of Saskatchewan, and Forte Pharma since joining the University of Waterloo.

With her move to Waterloo Region, Foldvari brings together her research program, industry connections and national and international collaborators to discover new treatment approaches, create research opportunities for students and develop market opportunities for industry.

"With the ability to collaborate with world-class experts and researchers in engineering and computer science at the University of Waterloo, we will be able to take our discoveries in drug delivery and pharmaceutical nanotechnology even further," says Foldvari.

She gives equal praise for the region as a great place to live and work. "Waterloo Region is wonderfully effervescent, a place where you can feel at home and, equally important, balance work and family life."

www.pharmacy.uwaterloo.ca/research/foldvari



New pharmacy school welcomes students, industry leaders to Waterloo Region

A \$30-million investment from the city of Kitchener made Dr. Jake Thiessen's (pictured at left) job a whole lot easier. Entrusted with the task of turning the vision of the University of Waterloo's School of Pharmacy into a reality, Thiessen drew upon his 33 years of experience as a professor of pharmacy at the University of Toronto and the talents of a small, dedicated team to build the school from the ground up.

His efforts culminated when the program launched in January of 2008. The new school is the anchor tenant in the University of Waterloo (UW) Downtown Kitchener Health Sciences Campus, which will include a full-service family health clinic, a teaching and research clinic from UW's School of Optometry, and a regional program of McMaster University's Michael G. DeGroote School of Medicine.

The School of Pharmacy is now acting as a magnet for research and commercial investment in Waterloo Region. It is one of only two North American universities to boast a co-op pharmacy program, providing young talent to business and industry. The University of Waterloo also offers an attractive research value proposition as intellectual property is researcher-owned.

"The vibrant city of Kitchener is now a hub of health sciences research," says Thiessen. "With its breadth in health sciences and its proximity to international centres such as Toronto, the School of Pharmacy allows for collaborative research and innovation on a national and international scale."

But none of this would have been possible without support from the city of Kitchener.

"The people of Kitchener made it happen," says Thiessen. "What other city in the world would have the vision to do that kind of thing? It was a courageous and far-sighted investment in the future, and it's something other cities can learn from."

www.pharmacy.uwaterloo.ca

Innovative research

- Agriculture & Food Sciences
- Alternative Energy & Fuels
- Bio-Products
- Health Informatics & Bioinformatics
- Medical Devices
- Nanotechnology
- Optometry
- Pharmaceuticals
- Physical Sciences
- Veterinary Medicine

Over 185+ research institutes

Syngenta finds roots in Guelph research cluster

Jay Bradshaw (pictured below), President of Syngenta Crop Protection Canada, is proud to lead the Guelph-based division of Syngenta, a world-leading agribusiness committed to sustainable agriculture through innovative research and technology.

Syngenta provides pest management solutions for farmers, investing \$2-million globally into research and development each day.

According to Bradshaw, the city of Guelph is a cluster for agriculture and agri-food innovation. The city includes the University, its Agricultural College and Research Park, where the Syngenta Canada head-office calls home.

"Our business is dedicated to helping farmers grow better crops that will address the world's growing demand for food, feed and fuel," says Bradshaw. "Guelph is equipped with the partner-ships and talent we need to assist Canadian farmers."

The proximity to the University also means graduating talent from the agricultural science program is close at hand. In fact, Syngenta Crop Protection Canada has been named one of Canada's top 100 employers by Maclean's magazine for two consecutive years and is a 2008 Top 10 employer in the region for offering an exceptional workplace.

Guelph is a city with strong family ties located close to the fashion and excitement of Toronto, the wine and high culture of Niagara Falls and the Stratford Shakespeare Festival.

www.syngenta.ca



World-class educational institutions: 66,000+ students, 12,500+ graduates annually

University of Guelph
• Ontario Agricultural College
• Ontario Veterinary College

University of Waterloo
• School of Pharmacy
• School of Optometry
• The Waterloo Institute for Health Informatics Research

Wilfrid Laurier University
Conestoga College
Institute of Technology and Advanced Learning

Industry associations

- Communitech: Waterloo Region's Technology Association
- Guelph Partnership for Innovation (GPI)
- Three Chambers of Commerce
- MaRS Landing
- BioEnterprise
- Advanced Food & Materials Network