

# Biotechnology in Health Research

## at Western University

With annual research expenditures exceeding \$220 million and an international reputation for excellence, Western University is one of Canada's top research-intensive universities. Home to *Robarts Research Institute*, and partnered with *Lawson Health Research Institute* and a robust hospital system, Western is a leader in Canada's biotechnology efforts, including for teaching and research related to medical imaging, robotic technologies, neuroscience, chemical engineering, medicine, science, lab safety, biosafety, chemistry, meteorology, business and law.

### Training

- Training tomorrow's biotechnology leaders through university and joint college programs in science, engineering, medical and business aspects of biotechnology, including through the Biotechnology Program at *Fanshawe College* and at the internationally renowned *Richard Ivey School of Business* at Western
- Established research and teaching excellence in diverse fields at Western, Robarts and Lawson, including in various disciplines of engineering, science, law and medicine

### Value-Added Services for Industry

- Preclinical trial capacity at unique, large-scale accredited animal care facilities
- Established international expertise in clinical trial design through *Robarts Clinical Trials*, led by Dr. Brian Feagan
- Capacity and incubators for new business start-ups and spin-offs, including the *Stiller Centre for Biotechnology Commercialization* and *Western's Research Park*
- Established partnerships with large multinational companies
- Home to a regional office of the *Ontario Agency for Health Protection and Promotion (OAHPP)* for monitoring, protecting and promoting health in Ontario

### Research Highlights

- *Biomedical Imaging Research Centre*: more than \$100 million in medical imaging infrastructure, including one of the most comprehensive imaging suites in the world – and one of only three global 7T fMRI systems
- *Canadian Surgical Technologies and Advanced Robotics (CSTAR)*: world-class collaborative research and training facility setting international standards for robotic surgical technologies, treatment innovation and minimally invasive patient care
- *Centre for Brain & Mind*: widely recognized as an international leader in cognitive neuroscience research, carrying the field into a new era of pioneering discoveries, treatments and tools
- *Ontario Ginseng Innovation & Research Consortium*: advancing plant biotechnology for health innovations
- *Nanofabrication Laboratory*: used to advance research related to nanodevices and drug delivery systems
- *Canada Research Chair Program in Powder Technology Applications*, Jesse Zhu: powder-based applications for pulmonary drug delivery

### Technology Development

- *WORLDdiscoveries*: one of Canada's top technology transfer initiatives, serving as the business development arm for both the University and the hospital system
- *Centre for Imaging Technology Commercialization and Research (CITCR)*: national centre of excellence designed to remove roadblocks to the commercialization of existing and emerging imaging technologies
- *Canadian Research & Development Centre for Probiotics*: based in London, this national centre is developing novel, non-injectable drug delivery systems for vaccines (e.g. food, peptides) in coordination with large multinational companies



CT scanner technology developed by Ting-Yim Lee has been licensed to GE Healthcare, helping doctors immediately track blood flow to the brain after a stroke – saving time and lives.

For more information, please visit: [www.uwo.ca](http://www.uwo.ca)



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Research