

Academic Research Works for Canadians

- **Academic research is a major employer in London North Centre.** Salaries of highly qualified staff and students are major line items in research budgets.¹ Academic research funding directly employs tens of thousands of people in good, middle-class jobs and provides students with a reliable path to join the middle class. In our eight labs alone, we employ:
23 technicians or research associates
15 postdoctoral fellows
23 graduate students
13 undergraduate students
- **Studies show that academic research helps local economies thrive.**² For example, here in London, local companies like Trudell, Ceresensa, Neuroscitech and others employ researchers and provide essential services.
- **Academic research helps the next generation.** Academic research helps the next generation of students gain knowledge and skills that will help them to pursue careers in industry, public service, or one of the many other sectors that contribute to our economy and society.
- **Academic research is a good investment.** Multiplier effects of academic research and research institutes range from 2.2 to 2.5, meaning that every \$1 invested results in \$2.20 to \$2.50 in direct and indirect economic activity.^{3,4} Estimates of the annualized return on academic research investment range from 20% to 67%.³ Health research has been shown to pay for itself and start saving Canadian health care dollars within as little as 5 years.⁵
- **Canada is falling behind other countries in federal investment in academic research.** The Fundamental Science Review Report notes: "... many less wealthy nations are now rapidly expanding their research capacity, while many of our OECD peers are investing heavily in both research and innovation."⁶

The broadband internet that many Canadians enjoy is thanks to **fundamental research** in fibre optics. This field of research is now leading to sensors that can better detect problems in bridges or in pipes carrying oil and gas to **keep Canadians safer.**

Canadians are more likely to survive a car crash these days partly thanks to materials scientists, who have created materials that absorb more energy in a crash. Researchers in this

Artificial intelligence is now a **growing sector of the Canadian economy** that may not have existed here if it weren't for research investments that the government of Canada made decades ago in mathematics, computer science, and other fields.

Research in Canada led to the discovery of insulin, which has **transformed the lives** of people with type 1 diabetes around the world. This type of diabetes, caused by a malfunctioning

Draft version piloted at Western University recently

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m, used to be ice for adults. Health Canada like advances **the lives of** th all types of

Researchers in the arts and humanities help Canadians find meaning. Canadian researchers and artists developed a play, "Cracked: New Light on Dementia," whose sold-out shows are helping Canadians **see dementia in a new light, and live** with their disease or with that of a loved one.

In agricultural research, Canada is a world leader in crop development and research on plants that help with ground cover and soil stability. Continued research will help Canada maintain a **safe food supply in a changing environment.**

Fundamental research **helps avoid tragedy in Canadian families.** Basic research decades ago has led to **new treatments for cancer** like immunotherapy. Research in animal models has led to a **30% lower risk of death for premature babies** and a 50% lower risk of developmental delays.

Researchers in education and social sciences are finding new ways to combat discrimination and bullying in elementary schools. Research like this helps to **keep Canadian kids safer** now and builds a **better Canada for the future.**

Thank you for supporting academic research in Canada. **#summerofscienceCAN**