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| Fundamental Research Works for Canadians | | |
| * **Fundamental research is a major employer in full riding name or abbreviation**. Salaries of highly qualified staff and students are major line items in research budgets.1 Fundamental 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 my one lab/our [count] labs alone, I/we employ: ### technicians or research associates ### postdoctoral fellows ### graduate students ### undergraduate students * **Studies show that fundamental research helps local economies thrive**.2 For example, here in place name, local business name here depends on researchers to buy their products and services. * **Fundamental research trains the next generation of innovators, the engine of a sustainable, knowledge-based economy.** Federally-funded research helps make it possible for thousands of students at Institution name here to acquire skills and knowledge. Our students become Canada’s doctors, nurses, engineers, entrepreneurs, artists, lawyers, analysts, industry scientists, public sector employees, fundamentals, and fill many other roles that contribute to our economy and society. * **Fundamental research is a good investment.** Multiplier effects of fundamental 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 fundamental 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 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.** | 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. |
| 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 area continue to develop better and less expensive materials to make **safer** cars and windows, **better** medical treatments, **less expensive** housing materials, **cleaner** energy, and many **useful** products. | Research in Canada led to the discovery of insulin, which has **transformed the lives** of people with type 1 diabetes. This type of diabetes, caused by a malfunctioning immune system, used to be a death sentence for children and adults. Health researchers in Canada continue to make advances that **improve the lives of Canadians** with all types of diabetes. |
| 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. | Fundamental research **helps avoid tragedy in Canadian families.** Basicresearch 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. |
| 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**. | 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 fundamental research in Canada. #summerofscienceCAN** | | |
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