





### Why Big Science Matters

By Diana Gifford

We applaud people solving problems who are focused, efficient, and fast. But I was recently reminded that progress doesn't always follow a straight line. Before investigators can conduct studies that yield breakthroughs, they often need others to finance and build major research infrastructure. It takes time, with various stops and starts, different collaborations often involving many institutions and countries, and not always a clear sense of direction.

TRIUMF, Canada's national particle accelerator centre in Vancouver, a partnership of 21 universities, enables study on the inner workings of atoms. The high-energy cyclotron technology developed there, and the specialists trained to use it, produce lifesaving isotopes used to diagnose cancer and guide treatment. As Dr. Lisa Kalynchuk, Vice-President of Research & Innovation at the University of Victoria, put it to me: "When you invest in scientific infrastructure, you're investing in possibility. You can't always predict where breakthroughs will appear – but you can create the conditions for them to flourish."

The Canadian Light Source in Saskatoon is a synchrotron – essentially a machine that bends electrons until they emit intense light. It was built to explore the physics and chemistry of advanced materials, enabling researchers to visualize viruses, investigate chronic lung disease, and understand how drugs interact with the body. Infrastructure constructed for physics and engineering research functions as a lab for understanding human life.

The International Space Station is an example of extraterritorial international collaboration at the frontiers of scientific exploration. It is also a health lab. Astronauts lose bone density rapidly in microgravity, so efforts to keep them strong have helped with osteoporosis, frailty, and aging here on Earth.

Ocean Networks Canada collects and shares data about all aspects of the ocean. The seas are a source of medicines for cancer treatment, new sustainable materials from kelp, renewable energy that reduces the negative health effects from burning fossil fuels, resources to reduce food insecurity, and adapting ocean life systems to better understand human health. The unusually large nerve fibres of squid, for example, made it easier for scientists to understand the electrical basis of the nervous system, knowledge that is shaping treatments for epilepsy, depression, and Parkinson's disease.

Some of the greatest breakthroughs in human health have arrived not by design, but by accident – provided an inquisitive mind was paying attention. Alexander Fleming wasn't searching for the world's first antibiotic when he returned from holiday to find that a wandering mold had killed bacteria on a petri dish. Yet penicillin went on to prevent more deaths than we can count. As Louis Pasteur once said, "Chance favors only the prepared mind."

Increasingly, big science facilities throw researchers from different domains together, triggering unexpected and important outcomes.

These examples remind us why we must invest in large scale research collaboration even when the practical benefits are not obvious. It's tempting to demand that every dollar be tied to a clear payoff. But history teaches the opposite. Discoveries emerge when we give scientists the freedom to ask bold questions, even ones that seem unrelated to human health. To insist that research must always serve a tidy, immediate purpose is to miss the possibility of much more.

Most people will never see a cyclotron or synchrotron at work. Very few will set foot on the Space Station. But many are benefitting. The decisions made years earlier – that few noticed, debated, or celebrated – have delivered health advances that now touch almost all of us.

The next time we hear about governments debating billions in scientific infrastructure, we might remember, these aren't abstract investments. They are the seedbeds of discoveries that one day may save our lives.

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This column offers opinions on health and wellness, not personal medical advice. Visit [www.docgiff.com](http://www.docgiff.com) to learn more. For comments, [diana@docgiff.com](mailto:diana@docgiff.com). Follow on Instagram [@diana\\_gifford\\_jones](https://www.instagram.com/diana_gifford_jones)

### Prioritizing Labour Market Needs Through 2026 International Student Application Allocation

TORONTO — In response to the federal government's decision to further reduce the number of international students permitted to study in Canada in 2026, the Ontario government is continuing to allocate Provincial Attestation Letters (PALs) to programs that prepare graduates for in-demand jobs and strengthen Ontario's workforce.

"Now more than ever, our government is focused on building a dynamic, highly skilled workforce that will protect and drive our economy," said Nolan Quinn, Minister of Colleges, Universities, Research Excellence and Security. "As we have been since the beginning, we will continue to work alongside our colleges and universities to ensure they can keep delivering the world-class education that Ontario is proudly known for, enabling students to launch good-paying, rewarding careers that our province needs to remain the most competitive jurisdiction in the G7."

For 2026, Ontario has been allocated 104,780 PALs, which is capped at 70,074 permits for students intending to study at Ontario's postsecondary institutions. This marks a 42 per cent reduction from 2025, and the third straight year that Ontario's allocation has been reduced. Starting this year, graduate students at publicly assisted colleges and universities will not require a PAL but will be counted under Ontario's total cap for international study permits.

In determining its 2026 allocations, Ontario continues to prioritize programs that produce the graduates Ontario's key industries need to thrive. As in previous years, publicly assisted colleges and universities will receive 96 per cent of the allocations, with the remaining 4 per cent going to Ontario's language schools, private universities and other institutions. Following the success of the midyear voluntary return of unused PALs this year, Ontario will continue this practice in 2026, ensuring maximum usage of the province's allocation.

Amid federal policy changes that continue to destabilize Canada's postsecondary sector, the Ontario government is making record setting investments into the province's colleges, universities, and Indigenous Institutes, including nearly \$1 billion through Budget 2025 to fund over 100,000 more seats in programs such as construction, teaching, nursing, and STEM. The government is also currently working alongside Ontario's postsecondary partners to modernize the funding model into a more responsive, sustainable, and future-ready framework.

Building on its 2025 allocation methodology, Ontario is protecting the integrity of the postsecondary education system by ensuring the province is attracting the best and brightest students who will make a positive impact in Ontario's critical, economy driving sectors during their careers.

For 2026, Ontario has been allocated 104,780 PALs, a 42 per cent reduction from 2025, with a cap of 70,074 permits for international students.

In 2025, Ontario was allocated 181,590 PALs, with a target of 116,740 permits.

In 2024, Ontario was allocated 235,000 PALs, with a target of 141,000 permits.

As of 2026, master's and doctoral students applying to public colleges and universities are exempt from the PAL requirement but will be included in overall cap allocation. Graduate students applying to private institutions will continue to be subject to PAL requirements.

To acquire an attestation letter to study in Ontario, students should contact the admissions office at the Ontario postsecondary institution where they have accepted their offer of admission and intend to enrol.

### Ontario Government Supporting Innovative Programs and Services in Ajax

AJAX — The Ontario government is providing two non-profit organizations in Ajax with \$193,700 in funding this year through the Ontario Trillium Foundation's (OTF) Seed grant stream. The funding will help provide local residents with better access to the critical programs, services, activities and spaces that make Ajax a great place to live, work and play.

"Our government believes local non-profit organizations enrich the lives of people in Ajax and play an important role in building a strong and supportive community and prosperous economy. That is why our government is proud to support these program and service providers through OTF's Seed grants," said Lorne Coe, MPP for Whitby and Parliamentary Assistant to the Minister of Colleges, Universities, Research Excellence and Security, and Children, Community and Social Services. "Organizations such as ASE Community Foundation and Big Brothers Big Sisters South Durham and Northumberland are pillars of our community. This support will enable them to deliver essential programming and better serve the people of Ajax, making a positive difference for years to come." OTF's Seed grants help organizations build resilience and enhance their ability to deliver programs and services that directly benefit community members. Grantees can use their funding to support organizational planning, pilot a new program and/or build their organizational capacity to plan for future programs and services for the people of Ajax.

In Ajax, organizations receiving funding include:

- ASE Community Foundation - \$99,300
- Big Brothers Big Sisters South Durham and Northumberland - \$94,400

"In Ajax and all across Ontario, non-profit organizations are delivering critical programs that empowers people to learn new skills, pursue rewarding careers and build meaningful connections with their community," said Stan Cho, Minister of Tourism, Culture and Gaming. "With this funding, Ontario is protecting and supporting communities, while helping to ensure these non-profits can strengthen their foundations and prepare for the future, so they can continue meeting the evolving needs of Ontarians now and for years to come."

The Ontario government has invested more than \$792 million in over 7,300 projects since 2018. These investments have created more than 9,490 full time jobs and generated over \$1.1 billion in economic benefits for communities across the province.

"Thanks to this generous funding from Ontario Trillium Foundation, we can begin filling a critical gap in our services by offering group programming for youth ages 6-10 on our waitlist. With rising demand and long wait times for mentorship, this support means up to 45 children will have access to the positive guidance and connection they've been waiting for. We are truly grateful for your commitment to helping young people thrive."

- Melanie Stewart, Executive Director, Big Brothers Big Sisters of South Durham and Northumberland

"We are grateful for the Ontario Trillium Foundation's commitment to strengthening outcomes for Black neurodivergent youth. This investment allows us to put our research into practice by building Black disability-affirming families, developing confident young leaders, and creating pathways that dismantle the systemic barriers highlighted in our study."

- Liza Arnason, Founder & Chair, Board of Directors, ASE Community Foundation

- The Ontario Trillium Foundation (OTF) is an agency of the Ministry of Tourism, Culture and Gaming. Its mandate is to build healthy and vibrant communities across Ontario by investing in community-based initiatives and strengthening the impact of the province's non-profit sector.
- OTF programs support the arts, culture, heritage, sports and recreation, human and social services, and environment sectors across the province.

### Ontario Government Supporting Innovative Programs and Services in Whitby

WHITBY — The Ontario government is providing three non-profit organizations in Whitby with \$172,800 in funding this year through the Ontario Trillium Foundation's (OTF) Seed grant stream. The funding will help provide local residents with better access to the critical programs, services, activities and spaces that make Whitby a great place to live, work and play.

"Our government believes local non-profit organizations enrich the lives of people in Whitby and play an important role in building a strong and supportive community and prosperous economy. That is why our government is proud to support these program and service providers through OTF's Seed grants," said Lorne Coe, MPP for Whitby and Parliamentary Assistant to the Minister of Colleges, Universities, Research Excellence and Security, and Children, Community and Social Services. "Organizations such as L'Assemblée des communautés francophones de l'Ontario, Durham-Peterborough, Sunrise Developmental Support Services and The Participation House Project (Durham Region) are pillars of our community. This support will enable them to deliver essential programming and better serve the people of Whitby, making a positive difference for years to come."

In Whitby, organizations receiving funding include:

- L'Assemblée des communautés francophones de l'Ontario, Durham- Peterborough - \$84,500
- Sunrise Developmental Support Services - \$13,100
- The Participation House Project (Durham Region) - \$75,200

OTF's Seed grants help organizations build resilience and enhance their ability to deliver programs and services that directly benefit community members. Grantees can use their funding to support organizational planning, pilot a new program and/or build their organizational capacity to plan for future programs and services for the people of Whitby.

"In Whitby and all across Ontario, non-profit organizations are delivering critical programs that empowers people to learn new skills, pursue rewarding careers and build meaningful connections with their community," said Stan Cho, Minister of Tourism, Culture and Gaming. "With this funding, Ontario is protecting and supporting communities, while helping to ensure these non-profits can strengthen their foundations and prepare for the future, so they can continue meeting the evolving needs of Ontarians now and for years to come."

The Ontario government has invested more than \$792 million in over 7,300 projects since 2018. These investments have created more than 9,490 full time jobs and generated over \$1.1 billion in economic benefits for communities across the province.

"Thanks to the Ontario Trillium Foundation's support, Sunrise will be able to build the internal capacity needed to meet rising demand for our services. This funding allows us to create a thoughtful strategic plan and modernize our policies and procedures, ensuring our programs remain responsive, person-centred, and accessible. This investment directly strengthens our ability to support individuals with developmental disabilities today and well into the future."

- Amber McKinley, Executive Director, Sunrise Developmental Support Services

"We are deeply grateful to the Ontario Trillium Foundation for their generous investment in our Step-by-Step Parenting Program. Their support ensures parents with cognitive challenges will have the opportunity to build confidence, develop skills, and thrive in their role as caregivers, making a lasting difference in lives of these families." - Michelle Brooks – Executive Director, The Participation House Project (Durham Region)

"L'Assemblée des communautés francophones de l'Ontario, Durham-Peterborough, is grateful to the Government of Ontario for this strategic support provided through the Ontario Trillium Foundation's Seed Grant. This funding represents a vital investment in strengthening access to high-quality French-language services and supporting the vitality and well-being of the francophone community in Whitby and the Durham Region. With this investment, our organization will be able to expand its capacity, develop innovative programming, better meet the needs of the families we serve, and continue advancing our commitment to building an inclusive, dynamic and resilient community. We extend our sincere appreciation to MPP Lorne Coe and our partners for their trust and continued support of Ontario's francophone community."

- Achille Fossi, PhD Chair, Assemblée des communautés francophones de l'Ontario Durham-Peterborough