seed2STEM

summer research program for Indigenous youth

2025 Annual Report

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2025 seed2STEM Vancouver cohort

Executive summary

STEM fields are critical to research, innovation, and Canada's long-term economic wellbeing. Yet Indigenous students remain under-represented in postsecondary STEM programs and careers. seed2STEM was created to help address this gap by providing Indigenous youth with paid research experiences, mentorship, and wraparound supports that make STEM pathways more visible, accessible, and welcoming.

Since 2018, seed2STEM has placed 142 Indigenous students in 112 research labs across Metro Vancouver and the Okanagan. Students have worked in a wide range of disciplines spanning applied sciences and health research. This report covers the period September 1, 2024 to August 31, 2025.

2025 was a year of major growth and recognition for seed2STEM:

- **Program scale:** 104 students (96 high school, 8 undergraduate alumni) completed placements in 78 laboratories across more than 40 departments, schools, centres, and institutes at UBC-V, UBC-O, SFU, and partner organizations—an increase of 72% compared to 2024. One-third of students were returning participants.
- **Geographic reach:** 7 students from remote communities joined the Metro Vancouver program, with homestays arranged through Northwest Homestay.
- **Year-round programming:** In response to 2024 student feedback, we piloted school-year tutoring and mentorship, a virtual information session on Indigenous pathways to postsecondary education, and a science field trip to Science World.
- **Funding:** The program secured more than $570,000 through competitive grants, faculty and departmental contributions, individual faculty support, and donations, enabling fair student compensation, strengthened staffing, and robust wraparound supports.
- **Recognition:** seed2STEM was honoured with the City of Vancouver's Leadership in Reconciliation Award and was profiled in multiple media stories. Program co-chairs and seed2STEM students also presented at the AISES in Canada National Gathering in Toronto.

Career speed-mentoring in Vancouver

Student and supervisor feedback was highly positive. Students reported large gains in confidence in STEM skills and research capabilities, felt welcomed and supported in their labs, and expressed strong interest in returning in 2026. Supervisors emphasized the positive impact on lab culture and their own mentoring practice, and 94% indicated they would consider hosting again.

Looking ahead, seed2STEM is implementing several improvements for 2026, including the introduction of short interviews in the student application process, earlier timelines, expanded training for students and supervisors, supervisor and student toolkits, and increased support for youth from remote communities.

Program overview

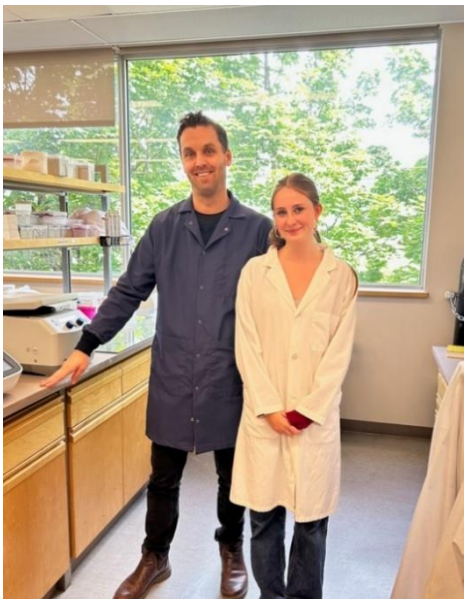
seed2STEM is a program that opens doors for Indigenous youth to engage with STEM research through experiential learning and mentorship. The program began in 2018 as a pilot at the International Collaboration on Repair Discoveries (ICORD), a UBC/Vancouver Coastal Health Research Institute spinal cord injury research centre. It was co-founded by Dr. Cornelia (Corree) Laule and Ms. Cheryl Niamath, with an initial focus on spinal cord injury and neuroscience research.

In response to community interest and need, over the last 8 years seed2STEM has since expanded:

- **Sites:** UBC-V, UBC-O, and SFU (Burnaby and Surrey), plus affiliated hospitals and research institutes.
- **Disciplines:** Astrophysics, biology, botany, chemistry, earth science, engineering (biomedical, civil, computer/electrical, materials, mechanical), environmental science, forestry, kinesiology, math, medicine, neuroscience, nursing, physics, psychology, public health, and zoology.

Each summer, Indigenous high school students (Grades 9–12) are offered **six-week paid internships** in university and hospital labs. Undergraduate alumni may return for **four-month research assistantships**, where they also act as mentors to high school students. Weekly group learning activities blend STEM skill-building with Indigenous cultural content, guest speakers, and community connection. Wraparound supports—including transit, lunches, homestays for students from remote communities, loaner laptops, and youth support workers—help remove barriers to participation.

Supervisors and lab teams receive cultural sensitivity training to support trauma-informed, inclusive research environments. The program culminates in a **Poster Celebration**, where students present their work to peers, mentors, families, teachers, and community members.



seed2STEM expanded to SFU in 2025

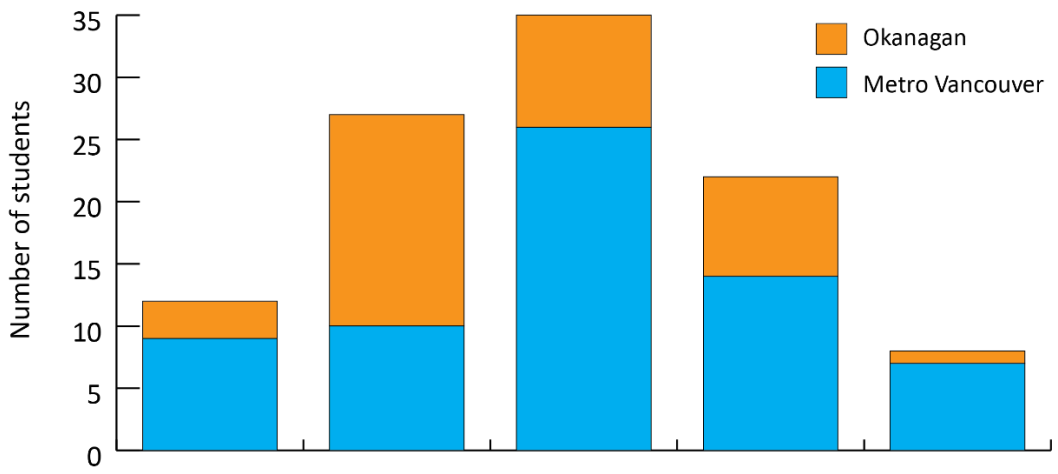
Looking ahead, the vision of seed2STEM is a STEM landscape where Indigenous youth are empowered as knowledge-holders and leaders, shaping futures where reconciliation is embedded in research and education.

2025 Summer program

Student demographics

In 2025, seed2STEM welcomed **104 students** across the Metro Vancouver and Okanagan sites, up from 60 in 2024.

- **Education level:** 96 high school students (Grades 9–12) and 8 returning undergraduate students.
- **Returning participants:** 33% of students had participated in seed2STEM previously.
- **Program completion:** 102 students completed the program. 2 students withdrew for personal reasons, and 2 completed independent research projects instead of finishing a lab-based placement.
- **Students from remote communities:** 7 students from remote communities joined the Metro Vancouver site. Homestays were arranged through Northwest Homestay, a company specializing in placements for high school students. Zoom calls were arranged with all potential homestay students to discuss expectations, daily routines, and supports available, in order to improve the experience for students travelling from remote communities.



	Grade 9	Grade 10	Grade 11	Grade 12	Post-secondary
Okanagan	3	17	9	8	1
Vancouver	9	10	26	14	7
Total (% of total)	12 (12%)	27 (26%)	35 (34%)	22 (21%)	8 (8%)

Figure 1: Grade distribution of students in 2025

Participating institutions, disciplines, and project types

Students were hosted in **78 laboratories and research units** across more than 40 departments, schools, centres, and institutes (see **Appendix A**) at:

- UBC Vancouver
- UBC Okanagan
- Simon Fraser University
- Dominion Radio Astrophysical Observatory
- Affiliated health institutions

We were excited to develop new partnerships with UBC-V Faculties of Arts and Forestry, additional UBC-V and UBC-O departments, BC Children's Hospital Research Institute, and 2 departments in SFU Faculty of Science.

Students worked in more than **22 STEM research areas**, ranging from astrophysics to zoology. Projects ranged from traditional wet-lab research and data analysis to creative science communication, engineering investigations, and field studies. This diversity allowed students to explore new interests and gain insight into potential STEM pathways.

Group learning activities

In 2025, we moved away from the hybrid Vancouver–Kelowna format used in previous years, and instead had each site independently plan its own group learning activities. This change:

- eliminated technical challenges associated with hybrid sessions.
- improved student engagement by having speakers be local and in person.
- allowed greater flexibility to respond to site-specific resources and student interests.

Across the two sites, we organized **17 activities** over six weeks, including campus tours, visits to technology companies and research facilities, skills workshops, and land-based learning. To reduce logistical difficulties for students in Kelowna, most activities took place on campus. A bus was hired for the field trip to Kaleden to visit DRAO. We also increased cultural programming, including Indigenous

cooking workshops, talks by Indigenous researchers, and student-led traditional games and music. These activities offered students meaningful opportunities to explore STEM, connect with peers, and learn from community leaders.

Activities in Vancouver

- **Indigenous cooking workshop (July 7)**
  Hosted by the Vancouver Aboriginal Friendship Centre Society and Friendship Catering. Students prepared traditional dishes and discussed the cultural significance of food.
- **UBC Day (July 14)**
  A full-day visit to UBC's Point Grey campus, including:
  - Self-guided visit to the Museum of Anthropology.
  - Lunch hosted by UBC Indigenous student recruitment.
  - Small-group tours of the School of Biomedical Engineering, Djavad Mowafaghian Centre for Brain Health, Stuart Blusson Quantum Matter Institute, and Pacific Museum of Earth.
- **Poster design workshop (July 21)**
  Dr. Katlyn Richardson introduced students to research poster design principles.
- **Career speed mentoring (July 21)**
  Students met local STEM professionals in rotating small-group conversations, learning about varied training paths and careers. Mentors included:
  - Danilo Caron (Giniw), BSc, BASc, MASc, EIT (*PhD student, Civil Engineering, UBC*)
  - Colin Chan, BASc, MEng, PEng (*Regional Leader, Sustainable Clinical Services, Vancouver Coastal Health*)
  - Monique Chapman, BSc, MSc (*Applied Science, SFU*)
  - Sarah Chapman, BSc (*Indigenous Pathways Program Coordinator, Genome BC*)
  - Janene Erickson (Nak'azdli Whut'en), BKin, MPH (*Executive Director, Indigenous Health, BC Centre for Disease Control)*
  - Beth Galambos, P.Geo. (*Geophysicist and Director, Frontier Geosciences Inc.*)
  - Dr. Mark Hills, PhD (*Principal Scientist R&D, STEMCELL Technologies*)
  - Vasiliki Ivanakis, RT(MR), CT, RTR, MHLP-CE (*MRI Regional Practice Lead, Vancouver Coastal Health*)
  - Paul Lesack, BA (*Data and GIS Analyst, UBC Library*)
  - Dr. Shao-Hua Lu, MD, FRCPC Psychiatry (*Psychiatrist and Clinical Professor, UBC*)
  - Bobo Tong, BSc, MPH (*Lab Manager, ICORD*)
  - Christina Hagner, MN, RN, NSWOC WOCC(C) (*Clinical Nurse Specialist, Vancouver Coastal Health*)
- **Talk by Dr. Dustin King (July 28)**
  Dr. Dustin King, Assistant Professor, Molecular Biology & Biochemistry, SFU, spoke with students about his journey in science and as an Indigenous biochemist.
- **Microsoft corporate headquarters visit (July 28)**
  Students toured Microsoft's downtown office, learned about careers in technology, and used a generative AI tool to design stickers.
- **Poster practice & cultural activities (August 11)**
  Morning poster practice with feedback from Dr. Richardson, followed by an afternoon of traditional games and music led by Shana George and members of the UBC Indigenous Students Society, including singing, drumming, and the Coast Salish hand game Slahal.
- **Résumé workshop (August 12 – optional)**
  Jordan Shimell (Talent Acquisition Partner, STEMCELL) led a workshop on résumé writing and career development.

Activities in Kelowna

- **UBC-O campus tour and Indigenous Program & Service Centre visit (July 7)**
  A comprehensive tour of the UBC-O campus to familiarize students with the environment and the resources available to them during their placements.
- **Indigenous land walk and cooking workshop (July 14)**
  Indigenous student Jasmine Peone led a land-based learning workshop at the UBC pond. Students learned about native plants and traditional techniques to utilize resources from the land. In the afternoon, Indigenous chef Chantelle Eustache led a workshop about the history and significance of bannock, after which student made their own bannock.
- **Poster design workshop (July 21)**
  Dr. Alanna Shwed introduced students to research poster design principles.
- **Introduction to photovoltaics (July 21)**
  The Laboratory for Solar Energy and Fuels led a hands-on workshop on solar panel function, followed by a tour of the advanced manufacturing facility at Innovation Precinct 1.
- **Dominion Radio Astrophysical Observatory (DRAO) visit (July 28)**
  A full-day field trip where students learned about radio astronomy, toured the observatory, and engaged with staff scientists (see photo below).
- **Poster practice session (August 11)**
  Dr. Shwed provided feedback on poster drafts ahead of the Poster Celebration.
- **Southern Medical Program visit (August 11)**
  A joint workshop hosted by the School of Nursing and the Southern Medical Program, featuring hands-on activities related to medical practice and patient care.

Field trip to Dominion Radio Astrophysical Observatory by UBCO students

Wraparound supports

In addition to salaries, seed2STEM also provides wraparound supports for students to help reduce financial and social barriers for students to participate in the program and provide a safe and stable environment for them to explore careers in STEM.

High school students were provided with monthly transit passes for public transportation during their placements. For two siblings in Vancouver, a UBC Point Grey parking permit was arranged for their parent in lieu of individual transit passes. A monthly allowance of $100 for undergraduate participants was provided to compensate for transportation costs since most did not qualify for student transit passes in the summer, and some used alternative transportation.

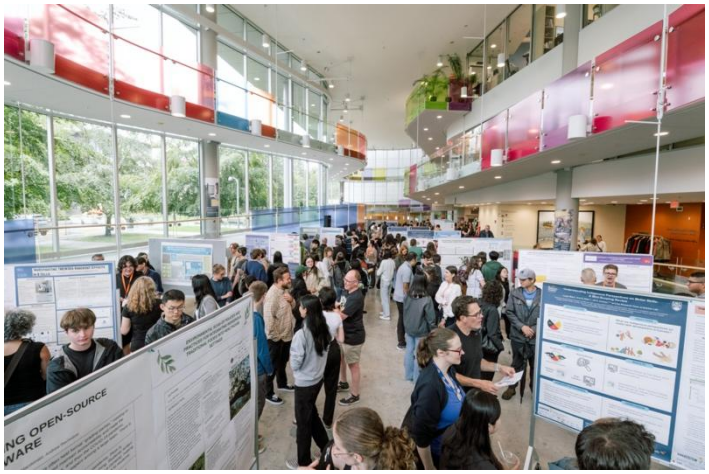
Lunch was provided for students, guest speakers, and staff on Mondays following the group learning sessions. On August 15, a celebration luncheon was provided at Blusson Spinal Cord Centre in Vancouver and UBCO's University Centre building in Kelowna before the afternoon poster sessions. The lunches were catered by Friendship Catering in Vancouver and the UBCO's Scholar's Catering in Kelowna. In addition to Monday lunches, we provided meal assistance to students in need. At UBC-O, we purchased and topped-up a Tim Hortons gift card for a student who was facing domestic challenges and could not afford their own meals.

We also provided other essential supports, including lab wear, personal protective equipment (PPE), and loaner laptops. This year, we offered an allowance to a student in Vancouver to purchase lab appropriate clothing. We also loaned laptops to 16 students (11 in Vancouver and 5 in Kelowna), with all associated costs (e.g., courier fees) covered by ICORD.

A part of the seed2STEM team since 2024, Indigenous support workers have proven to be a critical resource for students. They assist with issues ranging from logistical needs (figuring out transit routes, obtaining a SIN, setting up a bank account), interpersonal challenges (problems with friends/family), intergenerational concerns (effects of trauma on caregivers), in addition to providing mental health support. Their role is especially vital for students from remote communities, many of whom are living away from home for the first time and adjusting to homestays. With significant program growth this year, including hosting more remote students in Vancouver, we added a second support worker to our Vancouver site, for a total of two in Vancouver and one in Kelowna. This expanded support capacity was well-received by students, supervisors, and program personnel alike.

Poster Celebration

On August 15, a poster celebration and brunch were held at the Blusson Spinal Cord Centre for Vancouver students and at the University Centre building for Okanagan students. Supervisors were invited to join the brunch, during which several students presented their research projects. The afternoon poster session was open to the public, welcoming families, friends, teachers, and community members. Students showcased the work they accomplished over the summer and celebrated their achievements with colleagues, friends, and loved ones.



Poster celebration in Vancouver

Program evaluation

Student feedback

Students completed surveys on their first and last days, as well as half-way through the program. This section will focus on feedback from the exit survey (see **Appendix B**), with reference to some of the responses in the entry survey.

Overall support and experience

Students rated their overall program experience, support from seed2STEM, and support from hosting labs very highly. Students felt strongly supported, valued, and engaged throughout their placements.

- Students felt strongly supported by both the seed2STEM team and their host labs.
- Most students agreed that seed2STEM was a good use of their time and that they felt valued and welcomed in their labs.
- 94% would consider returning to seed2STEM in 2026.

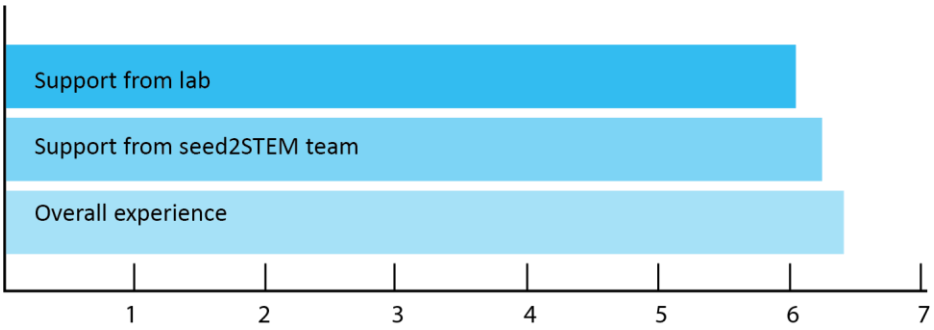


Figure 2: Average scores for program experience and support (1=not helpful, 7=very helpful)

Confidence in STEM skills and research capabilities

Students reported substantial increases in confidence between the entry and exit surveys:

- Greater confidence in learning new STEM skills and applying scientific concepts.
- Improved confidence with reading academic papers, writing research summaries, and working collaboratively in a research setting.
- Many students noted that this program provided their first exposure to research, making these confidence gains particularly meaningful.

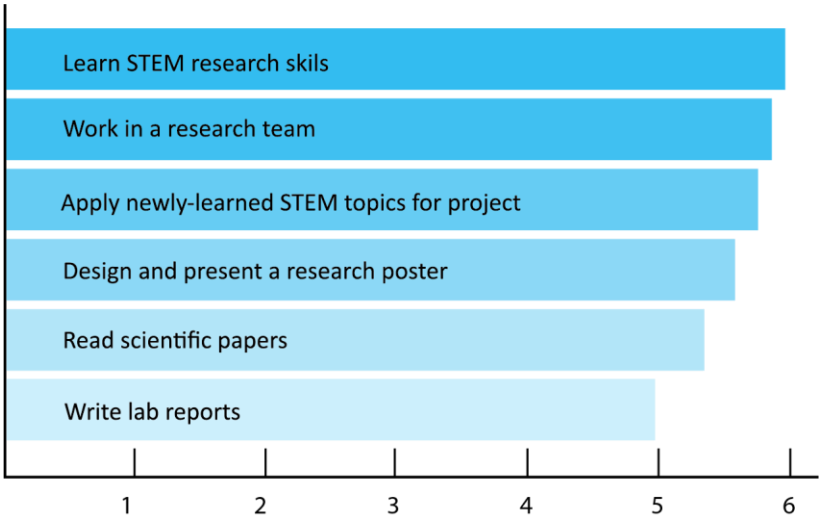


Figure 3: Student confidence in research-related skills after completing program (1=not confident, 7=very confident)

Placement-specific experience

Feedback from students specific to lab placements was strongly positive. Students highlighted supportive supervisors, friendly lab environments, and the opportunity to contribute to real projects as key strengths.

- 95% felt welcomed and accepted by their lab.
- 84% learned new skills beneficial for their academic futures.
- 77% believed they achieved their goals.
- 90% felt the placement was a good use of their time.

Several students noted that they would have benefited from more structured onboarding, clearer expectations, and earlier planning within their labs.

Group learning activities

Most students (77%) agreed that group learning modules helped them connect with peers across the program. Responses on overall enjoyment were more mixed. 56% really enjoyed being with the large group and enjoyed the large group activities on site while 49% really liked the field trips and would not change anything. Some students mentioned possible improvement areas such as pacing, duration, and activity selection. The diversity of student interests made it challenging to design activities that resonated equally with all participants. These insights are informing the design of 2026 group programming.

Postsecondary pathways knowledge & interest

To understand how the program influenced students' perceptions of STEM education and career pathways, we asked students 4 questions at entry and/or exit. The results illustrate consistent measurable gains at each site:

Survey Question	Site	Entry (%)	Exit (%)	Change (%)
If I wanted to pursue a STEM career path, I would know how to do so	Vancouver	64	82	+18
	Okanagan	58	74	+16
If I wanted to pursue postsecondary STEM education, I would know how to do so	Vancouver	55	86	+31
	Okanagan	56	85	+29
If I wanted to pursue a STEM career path, I would have professional contacts to guide me	Vancouver	76	80	+4
	Okanagan	69	74	+5
I am interested in pursuing a career in a STEM field	Vancouver	—	86	
	Okanagan		83	

Suggestions for improvement

We also asked students their thoughts about including short, informal Zoom interviews as part of the application process. Only 8% indicated they might be deterred from applying due to interview anxiety. This feedback helped shape our plan to introduce brief, conversation-style interviews for 2026.

Some students also requested:

- More comprehensive pre-program training
- Clearer project schedules within their labs
- More consistency with lab expectations
- The possibility of extending the program duration—though this remains logistically challenging.

Supervisor feedback

Supervisors provided detailed feedback through a post-program survey (**Appendix C**) about their experience hosting students, including time commitment, student interaction, poster preparation, program support, and overall experience.

Overall experience and support

Supervisor feedback was highly positive:

- Attendance at our annual supervisor workshop, "*Creating Trauma-Informed Learning Spaces for Indigenous Youth"* led by Sam Nock (Educational Resources Developer, UBC CTLT Indigenous Initiatives), reached a record high of 130+ participants, and 93% found the session valuable.
- 89% felt they received adequate support from the seed2STEM team.
- The average rating for overall program experience was 8.4 out of 10.
- 94% of supervisors reported they would consider hosting a student again.

Many supervisors described the experience as personally rewarding and noted that participating in the program helped foster a more inclusive and welcoming lab culture, and prompted them to reflect on their communication and teaching

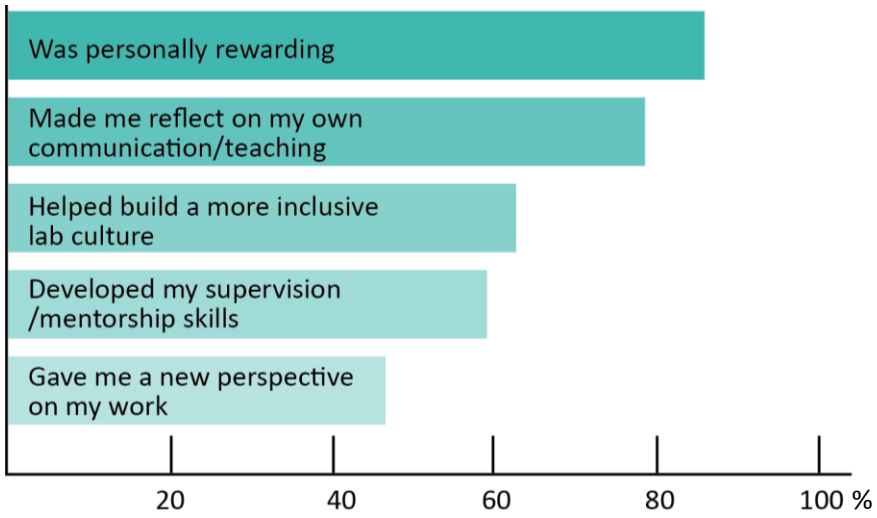


Figure 4: Benefits to supervisors of participating in seed2STEM.

Time commitment

On average, supervisors reported:

- 7.3 hours per week of direct student mentoring.
- An additional ~3 hours per week on project preparation and related activities.

Some supervisors noted that actual mentoring time was likely higher, due to ongoing informal supervision. Many supervisors appreciated the students' enthusiasm but emphasized the importance of setting realistic project scopes for high school students and planning tasks that allow for meaningful contributions within a six-week timeframe.

Poster preparation

Most supervisors had positive experiences supporting students with poster preparation, and 83% agreed that the process helped students consolidate what they learned. Common challenges included:

- Students completing most poster work in the final week.
- Varied expectations regarding poster structure and level of detail between the program team, students and supervisors.

- The need for clearer guidance on appropriate poster structure for high school students.

Some supervisors also recommended including the option of storytelling-based posters and offering earlier training for students.

Suggestions for improvement

Supervisors identified several areas where additional support would strengthen their experience and enhance student outcomes in future iterations of the program, including:

- Clearer pre-program communication about timelines.
- Sample project templates or frameworks.
- Expanded training on youth mentorship.
- Additional guidance on matching project complexity to student skill levels.

Several noted challenges in developing projects suitable for students with diverse skill levels, maintaining engagement when tasks required substantial background knowledge, and managing the level of supervision needed for high school students. This feedback and suggestions have directly informed our 2026 improvement plan.

School-year programming

In response to 2024 student feedback requesting ongoing support, seed2STEM piloted 2024-2025 school-year activities focusing on academic support, mentorship, and postsecondary navigation. We organized a free tutoring and mentorship program, a joint information session on Indigenous post-secondary pathways, and a science field trip for our Vancouver students. A planned visit to the Kelowna Heritage Museum was cancelled due to low registration.

Tutoring and mentorship

Tutoring: Based on requests by Summer 2024 students, we arranged free tutoring for eight students during the 2024-25 school year. All tutoring took place over Zoom. Students were tutored in mathematics, chemistry, anatomy & physiology, and general science.

We are sincerely grateful to the following tutors:

- Adan Moallemi, UBC Master's student & ICORD Trainee
- Alex Pei, UBC undergraduate & ICORD Trainee
- Ben Rever, UBC undergraduate & ICORD Trainee
- Caroline Aitken, UBC PhD student
- Danielle Rowland, ICORD Research Engineer
- Daren Toppin, P.Eng, Director of Customer Service at Greenlight Innovation
- Kadence Favell, seed2STEM student (Grade 12)
- Winston Brandt, UBC undergraduate & ICORD Trainee

"I got my first 96% on a math test this year. Danielle's really great at explaining the math and how I can approach it to the best of my abilities." – Grade 11 student.

Mentorship: Two students received one-on-one mentorship from Dr. Bethany Kondiles, an ICORD postdoctoral fellow, exploring educational and career pathways in STEM.

Overall feedback was very positive, and tutoring is again available in 2025–2026.

Indigenous pathways to post-secondary

On November 13, 2024, we hosted a virtual information session on Indigenous-specific post-secondary admissions pathways, scholarships and financial support, and student life resources.

- 30 students and parents/guardians attended.
- Presenters represented UBC, SFU, UNBC, TRU, UVic, Langara College, and BCIT.

Science World field trip

On January 18, 2025, Vancouver-area students visited Science World. Students participated in a hands-on engineering workshop with two civil engineers, building a mini water pipeline while learning key concepts in physics, engineering design, and infrastructure systems. Participants also joined a guided tour and had time to explore the exhibits independently. 10 students attended, including 4 seed2STEM students. We opened the event to non-seed2STEM students to increase outreach to local school districts and raise awareness of the program. The event received strong positive feedback, and 3 of the 6 non-seed2STEM participants joined the summer 2025 seed2STEM program.

Personnel

Program staff and leadership

The 2025 program was supported by an expanded leadership and coordination team:

Co-chairs:

- Dr. Cornelia Laule, UBC Professor (Radiology; Pathology & Laboratory Medicine; Physics & Astronomy) and ICORD Associate Director for Education & Training
- Ms. Cheryl Niamath, ICORD Communications + Administration Manager

Program Managers (full time):

- Mr. JC Rong
- Dr. Katlyn Richardson (September 1, 2025 onwards)

Program Coordinators (part time):

- Dr. Katlyn Richardson (Vancouver, until August 31, 2025)
- Dr. Alanna Shwed (Okanagan)

Youth support workers (part time, summer only):

- Ms. Alexandria Menta (Vancouver)
- Mr. Robin Roberts (Vancouver)
- Ms. Femi Vrtar (Okanagan)

Above, L-R: Katlyn Richardson, Robin Roberts, Corree Laule, Cheryl Niamath, and Alexandria Menta at the poster celebration on August 15, Vancouver.
Below, L-R: JC Rong, Alanna Shwed

seed2STEM also received essential support from the ICORD administrative team for HR, finance, program logistics.

Advisory panel

We are grateful for the advice and guidance provided by our Advisory Panel:

seed2STEM program alumni – now undergraduate students:

- Shana George
- Dean Harris
- Abigail Nicholson

Parents of seed2STEM students:

- Carla George
- Zaa Joseph

Community members:

- Dr. Jennifer Jakobi (UBC-O Professor)
- Doris Iwabu (Surrey School District outreach worker)
- Patrick Lauzon (Verna J. Kirkness Education Foundation board member)
- Dr. Gabrielle Legault (UBC-O Assistant Professor (Indigenous Studies)
- Richard Peter (Praxis Spinal Cord Institute Indigenous Peoples Liaison)

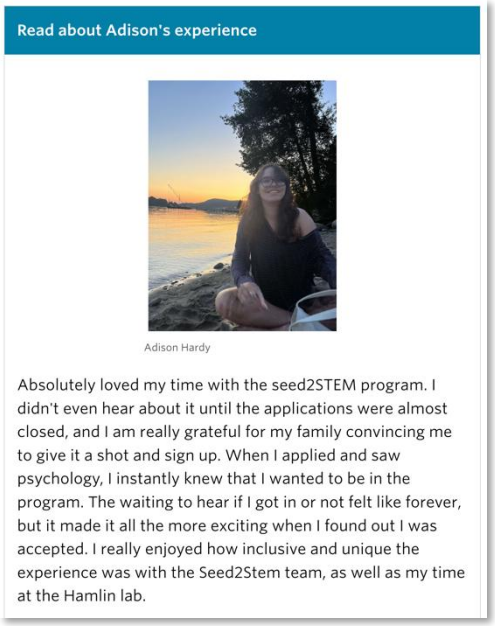
Vancouver students participate in cultural activities led by Shana George, August 11

Presentations, media, and recognition

Presentations and outreach

To recruit host labs and support student participation, the seed2STEM team engaged in extensive outreach:

- **Faculty and departmental presentations**
  Between February and April, the co-chairs delivered fourteen presentations at departmental and faculty meetings to introduce seed2STEM and encourage faculty to host students. They also presented at Neuroscience Grand Rounds.
- **Student information sessions at UBC Point Grey and ICORD**
  seed2STEM had a booth at the high school-focused UBC Indigenous Experience event at UBC Point Grey campus mid-February. Late February, a lunch presentation and tour for high school students, parents/guardians, and teachers was held at ICORD to introduce the program, answer questions, and support application decisions.
- **AISES in Canada National Gathering**
  On March 7, Dr. Laule and Ms. Niamath presented at the AISES in Canada National Gathering in Toronto, joined by undergraduate seed2STEM students Abigail Nicholson and Shana George. The session highlighted seed2STEM as a reconciliation-focused STEM pathway program for Indigenous youth.
- **Institutional engagement**
  During the summer, co-chairs presented about seed2STEM to the UBC-O and UBC-V Deans of Science teams and to the UBC Vice-President Academic & Provost. In September, they delivered a noon seminar to the McGill Medical Physics group, sharing lessons learned and discussing potential adaptation of the model.



Media coverage

seed2STEM was featured in multiple news stories, including:

- BC Centre for Disease Control & Pacific Public Health Foundation: *The Interns are Back for Another Summer of STEM Learning at BCCDC* [https://pacificpublichealth.ca/whats-new/another-summer-of-stem-learning/]
- BC Children's Hospital Research Institute: *BCCHR laboratories hosting Indigenous students for seed2STEM program* [https://www.bcchr.ca/news/bcchr-laboratories-hosting-indigenous-students-seed2stem-program]
- Djavad Mowafagian Centre for Brain Health: *DMCBH labs host Indigenous students in 2025 seed2STEM program* [https://www.centreforbrainhealth.ca/news/dmcbh-labs-host-indigenous-students-in-2025-seed2stem-program/]
- International Brain Research Organization: *seed2STEM 2025: Empowering young scientists with IBRO Fund for Undergraduate Research Internship* [https://ibro.org/seed2stem-2025-empowering-young-scientists/]

Screenshots from web stories posted by UBC Psychology (above) and BC Children's Hospital

- UBC Department of Earth, Ocean and Atmospheric Sciences news: *EOAS Hosts Indigenous Students in seed2STEM Program* [https://www.eoas.ubc.ca/news/1763151261]
- UBC Faculty of Medicine news: *UBC's seed2STEM honoured with City of Vancouver's Leadership in Reconciliation Award* [https://www.med.ubc.ca/news/ubcs-seed2stem-honoured-with-city-of-vancouvers-leadership-in-reconciliation-award/]
- UBC Department of Psychology news: *Planting STEM futures: UBC Psychology x seed2STEM* [https://psych.ubc.ca/news/2025-seed2stem/]

These pieces highlighted student experiences, partnerships, and the program's role in strengthening pathways to STEM for Indigenous youth.

Summer 2025 recap

https://www.youtube.com/watch?v=8M-8etA8ieA

Awards and recognition

seed2STEM received the **City of Vancouver's Leadership in Reconciliation Award** for 2025. The award was presented at a ceremony hosted by Mayor Ken Sim on October 15, 2025. [https://www.med.ubc.ca/news/ubcs-seed2stem-honoured-with-city-of-vancouvers-leadership-in-reconciliation-award/]

Back row, L-R: Cheryl Niamath, Dean Harris, Brian Kwon, Ken Sim, Mackenzie Su, Corree Laule; Front row: Shana George, Carla George at the City of Vancouver Awards Ceremony

Funding and expenses

In 2024-25 fiscal year (Sept 1, 2024 to Aug 31, 2025), seed2STEM operated with a diversified funding portfolio that supported program expansion while maintaining strong wraparound supports. The program received competitively funded grants from NSERC PromoScience, UBC Indigenous Strategic Initiatives, UBC Faculty of Medicine Strategic Investment Fund, and International Brain Research Organization (Undergraduate Research Internship Fund award).

Additional contributions from faculties, departments, research centres, faculty members, private donors, and in-kind support covered student salaries, staff salaries, and program expenses such as field trips and poster printing. In addition, three undergraduate students were successful in their applications to the NSERC USRA scholarship program, and two received SBME Synergy Award for Undergraduates, which supplemented their summer salaries.

Substantial in-kind support was generously provided by ICORD (administration, logistics, space, co-chair salary) and Pathology & Laboratory Medicine (co-chair salary).

Funding	
Competitively-awarded grants	$274,674
Contributions from faculties, departments & research centres	$226,540
Contributions from individual faculty members	$39,420
Donations	$31,000
Total funding for 2025	**$571,634**

Expenses	
Salaries	$426,575
High school students	$257,040
Undergraduate students	$96,875
Program staff (JC Rong, K Richardson, A Shwed)	$72,660
Wraparound supports	$38,453
Travel & homestay for students from remote communities	$24,500
Knowledge translation events	$12,000
Field trips	$7,400
Other expenses (honoraria, poster printing, office supplies, etc.)	$10,660
Total expenses for 2025	**$519,588**

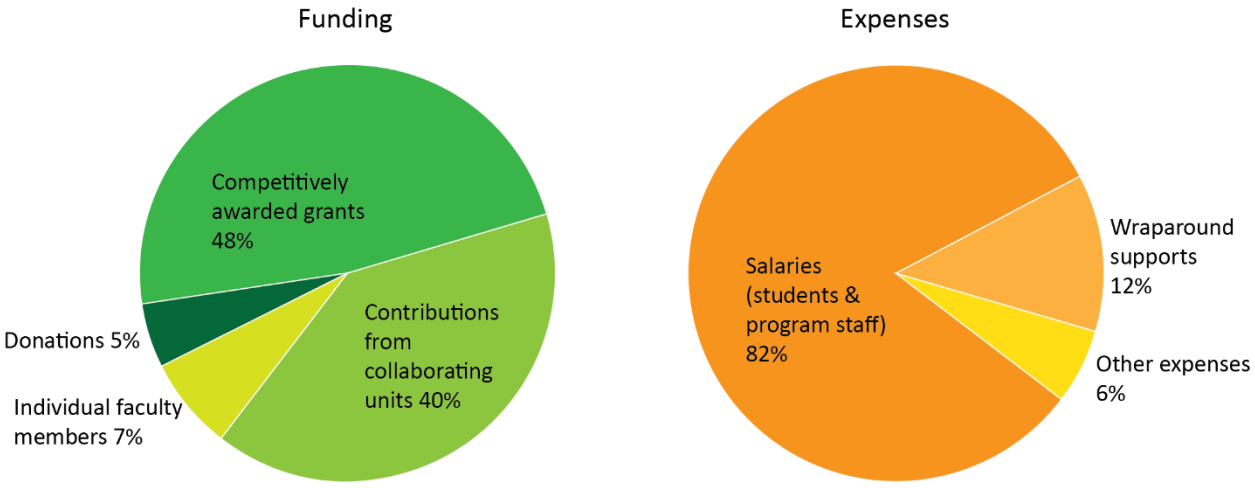


Figure 5: Program funding and expenses for 2025

Conclusion and future actions

The 2025 seed2STEM program was a year of significant growth, strengthened partnerships, and meaningful impact for Indigenous youth across BC. Students gained valuable research experience, increased confidence in STEM skills, and a clearer understanding of pathways into post-secondary education and STEM careers. Supervisors reported rewarding mentorship experiences and noted the program's positive influence on lab culture and inclusivity. These achievements were only possible through strong institutional partnerships, generous financial support, and the dedication of the program team, supervisors, and community partners.

To further strengthen student and supervisor experiences and address challenges identified, seed2STEM is implementing the following key actions for 2026:

1. **Interviews as part of the student application process:** we will introduce short, informal interviews to better understand students' interests, personalities, and support needs. Interviews will help improve project matching, clarify expectations, and allow early identification of support requirements
2. **Timeline adjustments:** Applications for 2026 will open in late November 2025, and close in late February 2026. The shifted timeline will provide more time for application review, interviews, project development, logistics planning, and coordination with hosting labs. This adjustment is crucial given the anticipated high volume of applications.
3. **Supervisor toolkit:** The supervisor toolkit includes program timelines, communication guidelines, project development resources, mentoring advice for youth, and poster preparation guidance. Completion anticipated Fall 2025.
4. **Student handbook:** The student handbook will cover program expectations, conduct guidelines, safety requirements, and foundational research and work skills. Completion anticipated Spring 2026.
5. **Expanded pre-program training:** We will introduce a multi-session training series for both students and supervisors. Additional training on mentoring youth and supporting students with diverse backgrounds will be offered for supervisors. This should be particularly helpful for graduate students who are supervising for the first time. Pre-placement training for high school students will split into 2 sessions (one in mid-late May, another late June) to strengthen foundational skills and ensure a smoother transition into laboratory environments.
6. **Greater student input into group activities:** We will invite returning students to propose, design, and deliver one or more of the group learning activities at each site. We hope his approach will promote leadership development and ensure that group programming better reflects student needs and interests.
7. **Enhanced support for students from remote communities and regional expansion**: A new UBC ISI grant will provide funding for 7 homestay students plus additional support from youth workers and additional funding for travel expenses. We are also developing plans to expand to Victoria and Prince George through an existing partnership with BC Cancer. We have applied for funding to expand seed2STEM to the Faculty of Medicine distributed sites (Southern Medical Program, Island Medical Program, Northern Medical Program). Enhanced homestay and expansion to the Island and the North will provide more options to Indigenous youth across BC.

We remain committed to improving the quality of the program experience, enhancing support for supervisors, and providing culturally grounded, hands-on learning experiences. The planned initiatives for 2026 will ensure that seed2STEM remains responsive to the needs of students, supervisors, and

community partners. Looking ahead, we will also focus on strengthening our outreach to remote communities and exploring regional expansion to make the program more accessible to Indigenous youth across the province. With support from partners, donors, and academic units, seed2STEM will continue to grow as a model for equitable, culturally informed STEM engagement and a meaningful pathway for Indigenous youth to pursue their interests and aspirations in STEM.

We are sincerely grateful for the support provided by:

icord
Vancouver Coastal Health Research Institute
Provincial Health Services Authority
NSERC CRSNG
BC Children's Hospital
Provincial Health Services Authority
BC Cancer Research
Provincial Health Services Authority
CIHR
Djavad Mowafaghian Centre for Brain Health
Gynecologic Cancer Initiative
UBC
Faculty of Medicine
School of Biomedical Engineering
Department of Psychology
Department of Radiology
Office of Indigenous Strategic Initiatives
School of Health and Exercise Sciences
Department of Earth, Ocean & Atomospheric Sciences
Department of Pathology & Laboratory Medicine
Department of Earth and Environmental Sciences
Centre for Teaching, Learning and Technology
TD
SFU Faculty of Science
International Brain IBRO Research Organization
& generous contributions from individual faculty members and private donors

Appendices

Appendix A - Collaborating institutions, faculties, departments, and research units

UBC Vancouver
Arts*
• Psychology*
Applied Science
• Civil Engineering*
• Electrical and Computer Engineering
• Mechanical Engineering
• School of Nursing*
Education
• Kinesiology
Forestry & Environmental Stewardship*
• Forest Resources Management*
Medicine
• Anesthesiology, Pharmacology & Therapeutics
• BC Cancer Research Institute
• BC Centre for Disease Control
• BC Children's Hospital Research Institute*
• Djavad Mowafaghian Centre for Brain Health
• ICORD
• Medical Genetics
• Medicine
• Obstetrics & Gynaecology
• Occupational Science & Occupational Therapy
• Orthopaedics
• Pathology & Laboratory Medicine
• Pediatrics
• Physical Medicine & Rehabilitation
• Physical Therapy
• Radiology
• Vancouver Coastal Health Research Institute*
• School of Biomedical Engineering
Science
• Botany*
• Chemistry
• Earth, Ocean & Atmospheric Sciences*
• Math
• Physics & Astronomy*
• Zoology*

UBC Okanagan
Irving K Barbour Faculty of Arts & Social Sciences
• Psychology*
Irving K Barbour Faculty of Science
• Biology
• Chemistry
• Computer Science, Mathematics, Physics and Statistics
• Earth & Environmental Sciences*
Southern Medical Program
School of Engineering
• Civil Engineering
• Mechanical Engineering
Faculty of Health and Social Development
• School of Health and Exercise Science
• School of Nursing*

Simon Fraser University - Faculty of Science*
• Department of Mathematics*
• Department of Molecular Biology & Biochemistry*

Dominion Radio Astrophysical Observatory (NSERC)

*new partnerships in 2025

Appendix B: Funding from departments, centres and faculty

Funding partner	Students supported	Full/partial support
Department / Centre / Program / Institute directly supporting student placements		
BC Cancer Research	7 high school, 1 undergrad	Full
BC Centre for Disease Control	5 high school	Full
BC Children's Hospital Research Institute	4 high school	Full
Care Anywhere program	2 high school	Full
Djavad Mowafagian Centre for Brain Health	5 high school	Partial
Dominion Radio Astronomical Observatory	1 high school	Full
School of Biomedical Engineering (SBME)	2 high school	Full
SBME Synergy program	2 undergrads	Partial
Simon Fraser University Faculty of Science	6 high school	Full
UBCV Earth, Ocean, and Atmospheric Sciences	2 high school	Partial
UBCV Psychology	4 high school	Partial
UBCO Earth and Environmental Sciences	2 high school	Partial
UBCO School of Health and Exercise Sciences	6 high school	Full
VCHRI Indigenous Health Research Unit	4 high school	Full
Individual faculty members directly supporting student placements		
Andrea Bundon, ICORD/KIN	1 high school	Full
Bashiva Kalyan, CIVIL	1 high school	Full
Brian Kwon, ICORD/ORPA	1 high school	Full
Chris Hearty, PHAS	1 high school	Full
Daniela Palombo, PSYCH	1 high school	Partial
Gregory Paradis, Forestry	1 high school	Full
Jess McIver, PHAS	2 high school	Full
John Kramer, ICORD/APT	1 high school	Full
Jonathan Leipsic, RADI	2 high school	Full
Kiran Soma, PSYCH	1 high school	Partial
Lynn Raymond, DMCBH	1 high school	Partial
Mark Halpern, PHAS	1 high school	Full
Michelle Tseng, Botany	1 high school	Full
Mona Berciu, QMI	1 high school	Full
Rachel White, EOAS	1 high school	Partial
Shannon Kolind, DMCBH	1 high school	Partial
Trish Schulte, ZOOL	1 high school	Partial
Wolfram Tetzlaff, ICORD/ZOOL	1 undergrad	Partial

Grants & other funding (competitive / non-competitive):

BC Cancer Research (program support)	$ 20,170
IBRO Undergraduate Research Internships (US$25K)	$ 34,000
ICORD (not including in-kind support)	$ 25,000
NSERC PromoScience, year 2 of 3	$ 55,000
NSERC Undergraduate Summer Research Award (x3)	$ 18,000
Pathology and Laboratory Medicine contribution	$ 15,000
Radiology contribution	$ 15,000
UBC Faculty of Medicine Strategic Investment Fund (Y2)	$102,730
UBC Indigenous Strategic Initiatives (Y1)	$ 49,997
VCHRI annual contribution	$ 15,000