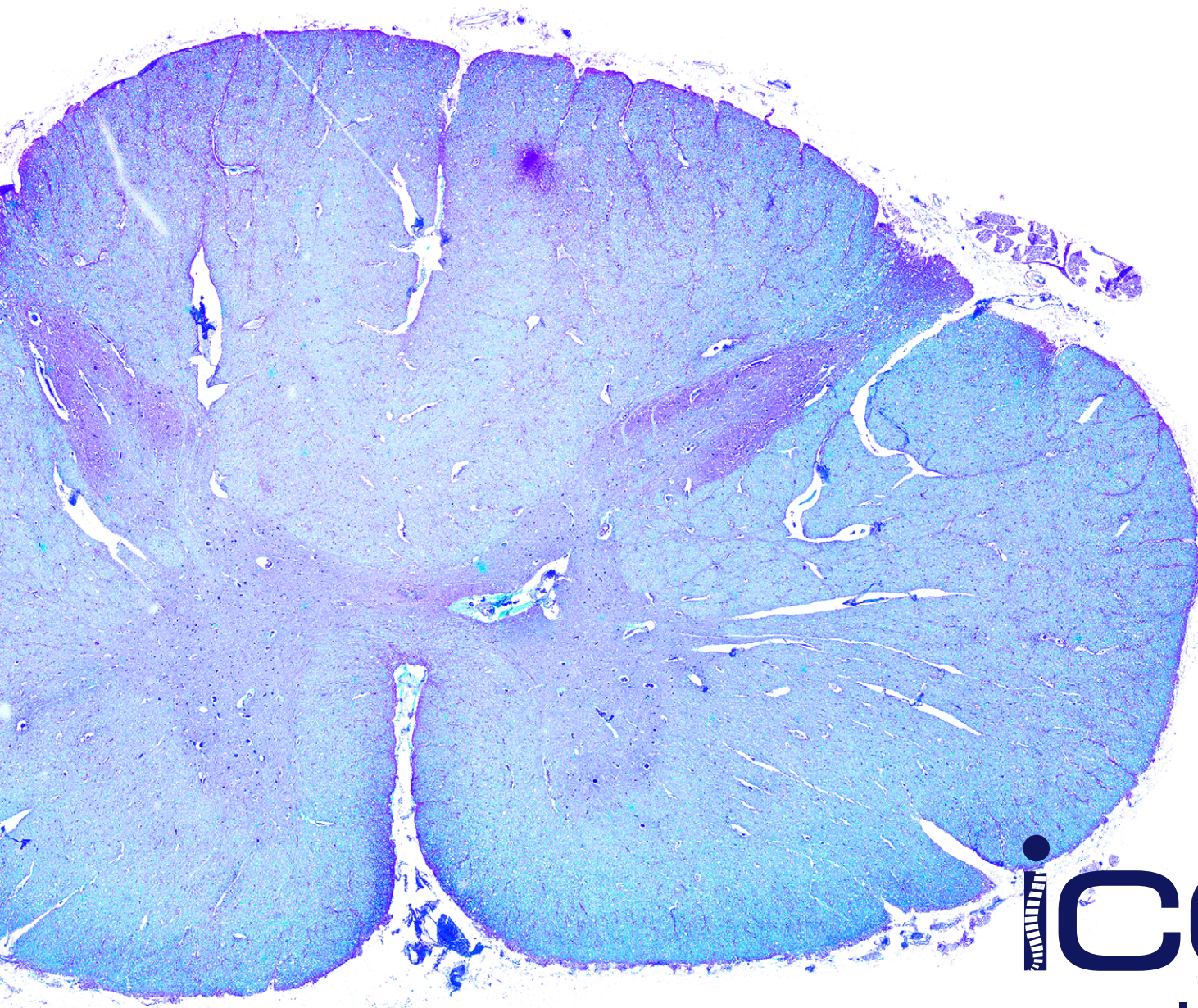




icord

annual report 2025-26

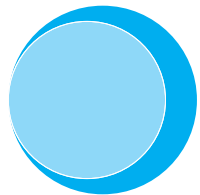
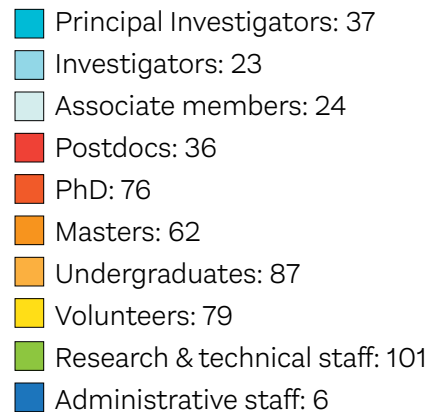


THE UNIVERSITY OF BRITISH COLUMBIA

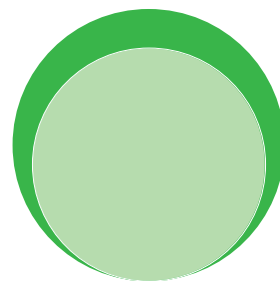
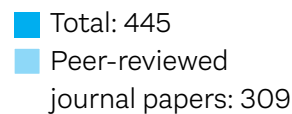
ICORD at a glance

April 1, 2025 to March 31, 2026

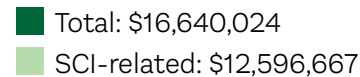
People: 531



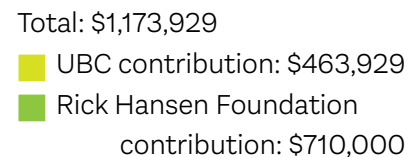
Publications



Competitive grant funding held by ICORD PIs



Funding support for ICORD



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Introduction

As I reflect on the past year, I am struck by the energy, creativity, and commitment that continue to define the ICORD community. From our research programs, clinical studies, trainee initiatives, and community partnerships, I have seen again and again what is possible when people with different expertise and lived experiences come together around a shared purpose: making spinal cord injury preventable, livable, and curable.

This year brought exciting growth to ICORD, including the addition of five new Principal Investigators whose expertise expands our work across clinical neuroscience, neural engineering, rehabilitation, implementation science, biomaterials, and biomedical engineering. At the same time, our established PIs continued to advance research, contribute to leading international publications, and create new opportunities for people living with SCI to participate in research.

What makes me especially proud is that our work extends well beyond the laboratory. Meaningful engagement continues to grow throughout ICORD, from the launch of our Meaningful Engagement Committee (MEC) to our Community Research Night, SCIRE, PARC, and outreach activities at GF Strong. Programs such as seed2STEM are also helping us build a more inclusive future for research by creating pathways for Indigenous youth to explore STEM and see themselves as part of the research community.

Trainees are at the heart of this community. This year, we launched the Ronald McLeod Graduate Student Stipend Program, and celebrated the accomplishments of trainees through awards recognizing research, mentorship, service, and community leadership. Supporting the next generation of researchers is one of the most important investments we can make in the future of SCI research.

The longstanding support of the Rick Hansen Foundation has been fundamental to ICORD's success. Since 1996, the Foundation has supported people and programs at ICORD, as well as the beautiful building in which we work. This has enabled research, training, community engagement, and initiatives that translate knowledge into meaningful improvements for people living with SCI. We are deeply grateful for this sustained partnership and its lasting impact on our community.

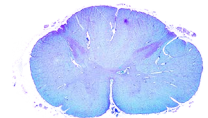
I am also grateful for the dedication of ICORD's Associate Directors, researchers, trainees, staff, community partners, participants, donors, and everyone who contributes their time, ideas, expertise, and lived experience to ICORD. Together, we are building not only new knowledge, but also a stronger, more connected community committed to translating discovery into meaningful change.

I am pleased to share this annual report as a reflection of what we have accomplished together, and a celebration of the people, partnerships, discoveries, and opportunities that defined the past year. It demonstrates the strength of the ICORD community and our continued commitment to translating research into meaningful improvements in the lives of people living with spinal cord injury. I look forward to continuing this work with all of you.



Brian K. Kwon, MD, PHD, FRCSC
Canada Research Chair in Spinal Cord Injury & Dvorak Chair in Spine Trauma
Director, International Collaboration on Repair Discoveries (ICORD)
Professor, Department of Orthopaedics, University of British Columbia

Cover image of a cervical spinal cord section courtesy of the **International Spinal Cord Injury Biobank**; used with permission.



Leadership



Director
Brian Kwon

Advisory Council



David Granville



Kathleen Martin Ginis



Tom Oxland



Wolf Tetzlaff

Executive



Heather Gainforth
ASSOCIATE DIRECTOR
*Meaningful
Engagement*

Meaningful
Engagement
Committee



Chris West
ASSOCIATE DIRECTOR
*Translational
Research*



Kip Kramer
ASSOCIATE DIRECTOR
*Centre
Operations*

Space
Committee



Mike Berger
ASSOCIATE DIRECTOR
*Rehabilitation
Research
& Services*



Corree Laule
ASSOCIATE DIRECTOR
*Education
& Training*

Trainee
Committee

Administration



Nancy Thorogood
Managing Director



Cheryl Niamath
Communications &
Admin Manager



Yuan Jiang
Facilities Manager



Katie Ashwell
Admin/HR



Chandelle Coleman
Finance



Zack Grant
Facilities/Equipment

Program highlights

New researchers join ICORD

This year, ICORD welcomed five new principal investigators whose expertise in clinical neuroscience, neural engineering, rehabilitation, implementation science, biomaterials, and advanced biomedical engineering strengthens our interdisciplinary approach to spinal cord injury research. **Drs. Newton Cho, Ashley Dalrymple, Femke Hoekstra, Zhenwei Ma, and Chris Moraes** are advancing innovative approaches to improve recovery, health care access, and quality of life for people living with spinal cord injury. Their complementary research programs expand ICORD's capacity to translate discoveries from the laboratory into meaningful clinical and community-based solutions.



L-R: Dr. Newton Cho, Dr. Ashley Dalrymple, Dr. Femke Hoekstra, Dr. Zhenwei Ma, Dr. Chris Moraes

Newton Cho: Dr. Cho is a highly accomplished neurosurgeon and researcher whose work bridges functional neurosurgery and spine surgery to enhance gait after injury and disease. He completed his neurosurgical residency at the University of Toronto in 2023, alongside a PhD at EPFL (Swiss Federal Technology Institute of Lausanne) focusing on neuromodulation for spinal cord recovery. His research uncovered a novel target for deep brain stimulation to improve walking post-injury. Dr. Cho has also pursued advanced fellowships in stereotactic/functional neurosurgery and combined neurosurgery/orthopaedic spine surgery. His clinical focus includes adult spine trauma, degenerative disease, and infections. He collaborates extensively with leading researchers at UBC and around the world to advance neuromodulatory therapies for SCI.

Ashley Dalrymple: Dr. Dalrymple is an Assistant Professor in the UBC Department of Physical Therapy. She studied Electrical Engineering and Neuroscience at the University of Alberta, with postdoctoral research in medical bionics at the Bionics Institute in Australia. At ICORD, Dr. Dalrymple directs the Neural Engineering and Rehabilitation Via Electrical Stimulation (NERVES) Lab – an interdisciplinary research lab focused on using electrical stimulation to improve sensorimotor function after neural injury. She and her team combine concepts from engineering, neuroscience, computing science, and rehabilitation to provide solutions to improve walking, restore sensation, and reduce pain in both preclinical and clinical studies.

Femke Hoekstra: Dr. Hoekstra is an Assistant Professor in the Department of Medicine, Division of Social Medicine, at UBC Okanagan. She has a PhD from the University of Groningen, in the areas of implementation science, rehabilitation, and physical activity promotion, and did postdoctoral research with ICORD PI Dr. Kathleen Martin Ginis. Dr. Hoekstra leads a research program dedicated to improving health services and care for equity-deserving groups in rural, remote, and other isolated communities. Her work focuses on studying how health innovations, such as virtual care, can be successfully implemented in real-world settings. She is passionate about improving health care access and experiences for people with SCI living in rural and remote areas.

Zhenwei Ma: Dr. Ma is an Assistant Professor in the UBC Department of Surgery. He is a multidisciplinary engineer with expertise in chemical, mechanical, biomedical engineering, pathology, and clinical translation. He holds advanced degrees from McGill University and Harvard University, along with postdoctoral training at UBC and MIT. Driven by bridging applied engineering and scientific inquiry, he leads research on biointerfaces and biomaterials to address critical clinical challenges. His work spans medical device engineering, mechanotherapy, and interfacial mechanics. Recognized with awards including the Baxter Young Investigator Award and the Relève Étoile Louis-Berlinguet Award, Dr. Ma focuses on designing precision tools to monitor and regulate human physiology.

Chris Moraes: Dr. Moraes is an Associate Professor at UBC's School of Biomedical Engineering. He trained in nanoengineering and mechanical / biomedical engineering at the University of Toronto, before holding NSERC / Howard Alper Banting Postdoctoral fellowships at the University of Michigan's Biointerfaces Institute, and a Canada Research Chair in Advanced Cellular Microenvironments at McGill University. His research and technical expertise lie at the interface between microfabricated cell culture systems, biomaterials design, advanced imaging technologies, and computational modelling; and he is particularly curious about the role microenvironmental biomechanical forces play in driving disease and development. Recent honours include the McGill Principal's Prizes for both Outstanding Emerging Researcher, and for Excellence in Teaching.

Brain Canada grant funds ISCI Biobank expansion

Brain Canada is supporting the expansion of the **International SCI Biobank** through its Platform Support Grant (PSG) program. These investments aim to accelerate discovery and foster open science, positioning Canada at the forefront of global neuroscience health innovation. *Promoting Global Spinal Cord Injury Research Through Human Biobanking*, led by ICORD Director and UBC Professor of Orthopaedics, Dr. Brian Kwon, will expand access to vital human biological samples for SCI research, enabling researchers worldwide to advance treatments and improve outcomes for patients. "This platform represents a critical step toward advancing spinal cord injury research globally," said Dr. Kwon. "By providing access to high-quality human biosamples, we're enabling researchers worldwide to develop and test new treatments that could dramatically improve quality of life for patients."

Papers by international researchers using data from the ISCI Biobank were published in the high-impact journals **Nature** and **Proceedings of the National Academy of Science (PNAS)**

McCallum, S., Suresh, K.B., Islam, T.S. et al. Lesion-remote astrocytes govern microglia-mediated white matter repair. *Nature* 649, 959–970 (2026). <https://doi.org/10.1038/s41586-025-09887-yZ>. Shen,B.

Feng,W.L. Lim,T. Woo,Y. Liu,S. Vicenzi,J. Wang,B.K. Kwon, & Y. Zou, Astrocytic Ryk signaling coordinates scarring and wound healing after spinal cord injury, *Proc. Natl. Acad. Sci. U.S.A.* 122 (15) e2417400122, <https://doi.org/10.1073/pnas.2417400122> (2025).

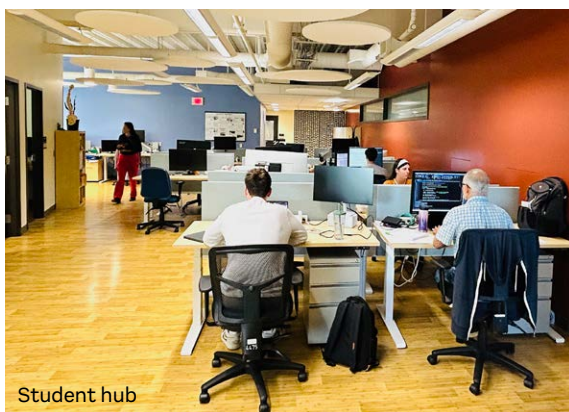




New Canada Research Chair
 Dr. Heather Gainforth's work to inject meaningful community engagement into all aspects of university research projects received national recognition in October when Dr. Gainforth, Associate Professor in the UBC Faculty of Health and Social Development and ICORD Associate Director of Meaningful Engagement, was named the SSHRC Tier 2 Canada Research Chair in Research Coproduction and Implementation Science.

BSCC third floor upgraded

Led by ICORD Associate Director of Centre Operations, Dr. John Kramer, the third floor of the Blusson Spinal Cord Centre has been upgraded with a new student hub and a large meeting room with built-in teleconferencing capabilities. The student hub is located in the North-East corner of the building, in the original location of the ICORD Administrative office, and includes space for 18 graduate and postdoctoral trainees.



Student hub

Menopause & SCI/D priorities report published

Dr. Stacy Elliott, alongside colleagues Kate McBride, Rachel Nicoletti, and Teri Thorson, published *Menopause & Spinal Cord Injury: Co-creating priorities for clinical practice, research and knowledge translation*.

Developed through the Menopause & SCI/D Collaborative, the report identifies the top ten priorities for research, clinical practice, and knowledge translation identified by healthcare professionals and people with spinal cord injury and disease (SCI/D) who experience menstruation. The initiative brings much-needed attention to menopause as an important and understudied area in SCI/D, while creating a foundation for future research, knowledge translation, and care initiatives informed by lived experience.



Scan for report.

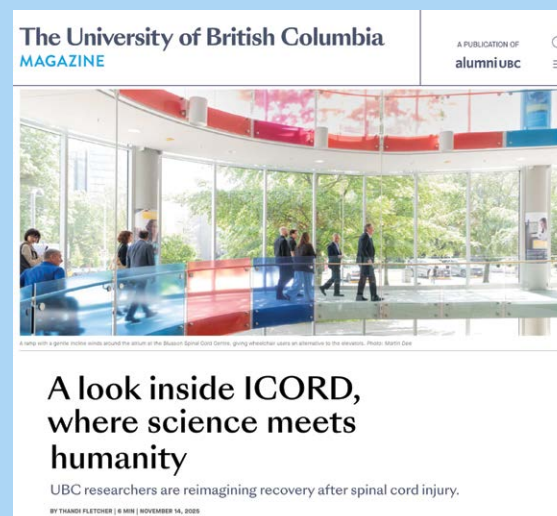
UBC President's visit featured in *UBC Magazine*

A feature story about UBC President Benoît Antoine Bacon's tour of ICORD in June 2025 was published in the November 14, 2025, edition of *UBC Magazine*.



Scan for article

See ICORD's **2024-25 Annual Report** for more about the visit.



Events and outreach

ICORD - SCI BC Community Research Night

On November 3, 2025, ICORD and Spinal Cord Injury BC welcomed more than 120 community members, research participants, researchers, and partners for an evening dedicated to sharing discoveries and strengthening connections between scientists and people living with SCI. This was ICORD's first community research event since 2018.

For many visitors, the event offered a rare behind-the-scenes look at ICORD's research and an opportunity to meet the teams working to improve treatments and outcomes. Interactive displays by ICORD trainees and investigators highlighted work in rehabilitation, mobility technology, injury prevention, biomaterials, and more. Attendees explored hands-on demonstrations, learned about current projects, and spoke directly with researchers about ongoing studies.

The night also provided an important space for researchers to hear directly from people with lived experience. Participants shared insights about daily challenges, rehabilitation priorities, and what meaningful engagement in SCI research looks like—feedback that can help shape future studies. Feedback from guests and researchers was overwhelmingly positive. Many described the event as inspiring and energizing—and are already looking forward to future Community Research Nights.

International Day for Women and Girls in Science

February 11: More than 100 guests, including lots of young children, had fun with interactive displays and activities by Science World, UBC Geering Up, ethós labs, Gynecologic Cancer Initiative, UBC Young Women for STEM, seed2STEM, and the Tetzlaff Lab, Hilton Lab, Moraes Lab, and OIBG from ICORD. We are grateful to **Drs. Lynn Raymond and Shernaz Bamji**, Co-Directors of the Djavad Mowafagian Centre for Brain Health, for their inspiring opening comments.

Trainee symposium

Organized and presented entirely by members of the ICORD Trainee Committee, the 2026 Trainee Symposium took place on March 10. Trainees Dr. Daniele Ferrari, Kenneth Wong, Isa Samad, Nicholas Tjandra, Dr. Tara Fortino, and Nikolai Lesack gave informative talks about their current research. Dr. Freda Miller, Tova Plashkes, and Matt Jensen shared stories about their professional career paths, and new ICORD PIs Drs. Chris Moraes, Femke Hoekstra, Ashley Dalrymple, and Zhenwei Ma spoke about their work. Ryan Clarkson and Matthew Querée gave talks from the SCI community perspective following 28 research poster presentations. It was a fun and inspiring day! Congratulations to symposium co-chairs, Yao Sun and Katie Jeffris for their organizational success!



Above: Spinal Cord Injury BC table at Community Research Night; below: learning about bubbles at the celebration of the UN International Day for Women and Girls in Science



“What is SCI Research” client education presentations at GF Strong
 ICORD’s Research Liaisons, the ICORD Trainee Committee Community Outreach Lead, and SCIRE’s Research Coordinator gave quarterly presentations at GF Strong in partnership with the SCIRE research team. Each session engaged approximately ten to fifteen inpatients, family, and community members. Sessions covered how to access research opportunities, red flags to watch for when evaluating studies, and special topics such as spinal cord stimulation, exoskeletons, and nerve transfer surgery. These sessions equip in-patients and their families to be informed, active participants in the SCI research community by demystifying how to find and filter studies, connect with ICORD’s resources, and stay up-to-date on emerging treatments.

seed2STEM

Started at ICORD in 2018, seed2STEM is an award-winning program that creates paid, culturally safe pathways into STEM for Indigenous youth in Grades 9-12. High school students are able to explore STEM fields and envision themselves in research, health care, and technology careers. By providing paid research placements, mentorship, and wraparound supports, the program addresses financial, geographic, cultural, and systemic barriers that can limit access to STEM opportunities for Indigenous people. For ICORD and UBC, seed2STEM also creates an opportunity to transform research environments by strengthening inclusive mentorship and building relationships with Indigenous students, families, and communities.

Students have participated in projects spanning astrophysics, biology, botany, chemistry, computer science, earth science, environmental science, forestry, geology, kinesiology, mathematics, medicine, neuroscience, nursing, physics, psychology, public health, statistics, zoology and biomedical, civil, electrical, materials and mechanical engineering. This breadth matters: students are introduced to STEM before they must make high school course and post-secondary prerequisite decisions, and they can test their interests in a real workplace rather than relying on a classroom-based, narrow or abstract picture of what a STEM career might involve.

Since 2018, seed2STEM has engaged 195 individual Indigenous students through placements in 144 research laboratories across UBC Vancouver, UBC Okanagan, Simon Fraser University and health research institutions including BC Children’s Hospital, St. Paul’s Hospital, Vancouver General Hospital, BC Cancer Research Centre and the BC Centre for Disease Control. Of 81 high school graduates tracked to date, 80% have entered post-secondary education; of those, 88% entered STEM.

seed2STEM received the City of Vancouver Leadership in Reconciliation Award for 2025 for demonstrated leadership in advancing reconciliation efforts in Vancouver.

seed2STEM is generously supported by:



& generous contributions from individual faculty members and private donors



L-R: Cheryl Niamath, Dean Harris, Shana George, Brian Kwon, Ken Sim, Carla George, Mackenzie Su, Corree Laule at the City of Vancouver Awards, October 2025

Meaningful Engagement Committee



The purpose of the Meaningful Engagement Committee (MEC) is to foster a connected environment where researchers and knowledge users work together to create, share, and implement knowledge that matters.

This year marked an important period of development for the MEC. In October 2025, the committee was formally launched alongside its strategic plan, logo, and web page. The MEC strengthened relationships and networks through community events while increasing awareness of meaningful engagement through the release of its first newsletter, The MEC Moment, and the introduction of the MEC Award.

In November 2025, ICORD and Spinal Cord Injury BC co-hosted a Community Research Night in Vancouver, where eight ICORD research groups and six ICORD partners shared information with more than 120 registered attendees (see page 8). In Kelowna, four ICORD-Okanagan community coffee events were held throughout the year, providing additional opportunities for connection and knowledge exchange.

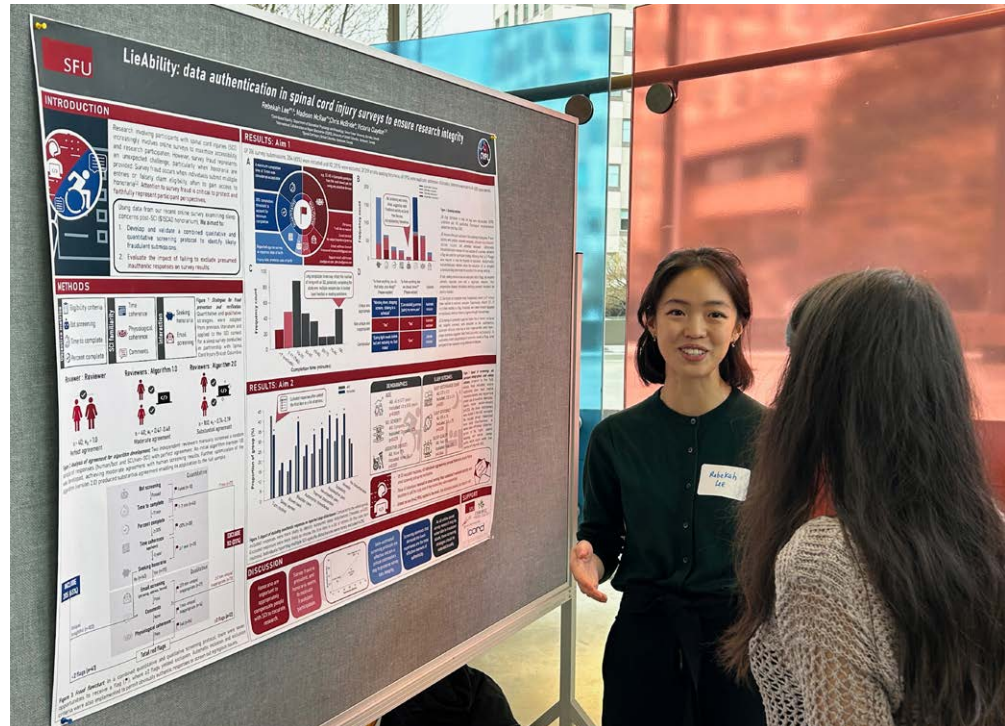
The **MEC Award** was introduced at the ICORD Trainee Symposium in March 2026. The award recognizes meaningful engagement in research and celebrates individuals who demonstrate a commitment to meaningful engagement practices. Rebekah Lee, representing Dr. Victoria Claydon's laboratory, was selected as the inaugural recipient for her project, *LieAbility: data authentication in spinal cord injury surveys to ensure research integrity*.

Strong participation across these initiatives demonstrates the value of creating opportunities for connection, knowledge exchange, and greater awareness of meaningful engagement in SCI research.



Scan the code to visit the MEC web page.

Rebekah Lee presenting her poster at the 2026 Trainee Symposium



Rick Hansen Foundation support

The funding support provided by the Rick Hansen Foundation to ICORD is vital. Not only are the direct results of the funding beneficial to the centre but the indirect benefits of the support are far-reaching. With shared equipment, seed grants, and seminars, ICORD is an internationally-known centre where researchers and trainees want to come to do SCI research.

Highlights of some RHF-supported initiatives and activities at ICORD, 2025-26:

Seed Grants

ICORD's Seed Grant Program, supported by RHF, continues to advance research and generate new knowledge in the field of SCI. By enabling innovative pilot projects, seed funding provides researchers with preliminary data that can strengthen applications for larger-scale funding and support further investigation into SCI and potential treatments. This investment contributes to ICORD's vision of making SCI preventable, livable, and curable by building research capacity, fostering collaboration and partnerships, and creating opportunities for new directions in research. Seed funding also strengthens researchers' competitiveness for external funding, helping to leverage additional resources for high-quality, impactful research.

The 2026 Seed Grant competition funded seven successful applications:

Principal Investigator	Project Title	Amount
Newton Cho	Lateral hypothalamus deep brain stimulation to improve upper extremity function after cervical spinal cord injury	\$30,000
Peter Cripton	Spinal cord injury mechanisms in mountain bike headfirst impacts	\$29,912
Ashley Dalrymple	Transcutaneous spinal cord neuromodulation to reduce spinal cord pain	\$29,500
David Granville	Investigating the roles of granzyme B and K in spinal cord injury	\$30,000
Zhenwei Ma	Engineering tough bioadhesive therapeutic hydrogels for pressure injury management	\$30,000
Chris Moraes	MechanoMapping: Constructing a Mechanical Atlas of SCI Progression	\$30,000
Lyndia Wu	Investigating Photoplethysmography (PPG) and PPG-Derived Cardiac Characteristics in Individuals with Spinal Cord Injury	\$30,000



SCIRE

SCIRE (Spinal Cord Injury Research Evidence) is a free online resource that covers a comprehensive set of topics relevant to SCI rehabilitation and community reintegration. SCIRE reviews, evaluates and translates existing research knowledge into a clear and concise format to inform health professionals (SCIRE Professional) and other key players (SCIRE Community) of best rehabilitation practices following SCI.

Highlights include:

- New content was developed for Balance Function, Walking, Menopause after SCI, Autonomic Dysreflexia, Orthostatic Hypotension, Bladder Management, and Sexual and Reproductive Health
- One peer reviewed publication, Effectiveness of Functional Electrical Stimulation Assisted Locomotor Training on walking Outcomes Following Incomplete Spinal Cord Injury: Systematic Review and Meta-Analysis. Neurorehabil Neural Repair. 2026 Feb;40(2):144-156.
- Community stories were added about Dr. Krassioukov's work in the Ukraine and Sam Sullivan, "a conversation about everything."
- A new evidence-based online course for primary care physicians in collaboration with UBC's Department of Family Practice. Accreditation was received for MainPro+1.0 credits. The course has been live for 2 months and 56 clinicians have participated in the course so far.
- SCIRE was approved as a resource for General Practitioners through Pathways BC, a secure, web-based directory and resource tool that BC family doctors SCIRE Primary Care section, SCIRE AD Treatment Infographic, and SCIRE Bowel Management Infographic are now in Pathways BC. Through the continued efforts of Dr. Andrea Townson, SCIRE Community content (all 60+ factsheets) have also been approved for inclusion. This means that anytime someone with SCI is in their GP's office, and the GP searches for 'rehabilitation' or 'spinal cord injury' within Pathways BC, our resources a) will come up to guide and inform the physician, and b) can be easily emailed to their patient from within Pathways BC during the consult.



300,000 page views
from 138,000 users
visiting SCIRE (+28K over
the prior year)
34K downloads
with 30% coming from
Canada
SCIRE YouTube:
87 videos, 3.5K
subscribers, 146K views
in last 12 months, total of
924K total views

PARC

The **Yuel Family Physical Activity Research Centre (PARC)** is ICORD's most successful community engagement initiative. Its purpose is to provide community members living with SCI and related impairments with an accessible space to be physically active and achieve their exercise goals. PARC is unique in that participants are not required to enroll in a structured program; instead, they are encouraged and supported to attend on a drop-in basis. The centre emphasizes participant autonomy and choice by allowing individuals to determine the frequency and type of exercise that best meets their needs while ensuring they receive appropriate guidance and support.

Funding provided by the Rick Hansen Foundation supports a portion of the PARC Manager position, seven student staff positions, and minor operational supply costs. These staff members are essential to PARC's daily operations, both in person and online, helping to maintain a safe, welcoming, and supportive environment for participants. In addition to conducting member intake assessments and reassessments, each supervisor mentors and oversees 10–15 student volunteers. Two student supervisors also serve as personal trainers,



providing one-on-one individualized exercise programming and ongoing support for participants. PARC operates six days per week. Attendance continued to increase throughout the year, reaching as many as 50 visits per day and averaging between 180 and 220 visits each week.

Notable initiatives during the 2025–2026 reporting period include:

- Group exercise: PARC continued four weekly online classes and introduced an in-person Zumba class, alongside Stretch and Relax, Power Circuit, wheelchair table tennis, and adaptive spin sessions.
- Work Integrated Learning: For the fourth consecutive year, UBC Kinesiology students participated in a Work Integrated Learning course at PARC, gaining community-based exercise experience while enhancing participant services through individualized exercise programming, counselling, and technique coaching.
- Equipment and facility enhancements: New equipment, including an EasyStand standing frame and Swedish ladder, expanded exercise options and accessibility. A dedicated training space was also created to support growing demand for personal training, with additional equipment purchased based on participant and student feedback.
- Community of Practice: PARC continued its participation in the Canadian Disability Participation Project 2.0 Community of Practice, connecting adaptive exercise facilities across Canada to share resources and best practices for inclusive physical activity programming.



Tony Na (L) and Bernita Boersma (R) at PARC

Clinical studies

Ali Williams and **Winston Brandt** are ICORD's research study liaisons. Ali is the manager of Dr. Tania Lam's Human Locomotion Lab, and Winston is a Masters student in Dr. Lam's Lab. Ali and Winston work with people interested in taking part in research to narrow down what studies they may be eligible for, based on research interests as well as common study inclusion and exclusion criteria. From there, they tailor a list of research studies and provide details and contact information for each one. They can also directly connect potential research participants with study coordinators.

Between April 2025 and March 2026, ICORD researchers initiated 16 new human-based research studies. Nine studies have been completed or are no longer recruiting. Seven continue to recruit participants:

Currently recruiting

Spinal Cord Injury Blood Biomarker Longitudinal Evaluation (SCRIBBLE): this is a prospective biomarker validation study being led by **Dr. Brian Kwon** and **Dr. Cheryl Wellington** to evaluate proteins within the blood (GFAP and NFL) that appear to be strong predictors of injury severity and outcome after acute SCI.

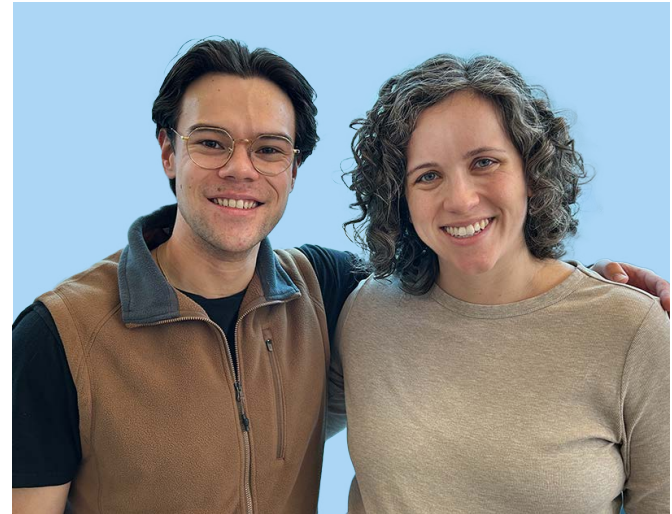
Non-invasive MRI to measure brain and spinal cord changes after SCI: Researchers in **Dr. John Kramer's Lab** are developing a non-invasive MRI technique called spinal cord thermometry to investigate whether inflammation persists months or years after SCI. By measuring spinal cord temperature, the study could provide a new way to detect and understand long-term inflammation after injury.

Transcutaneous spinal cord stimulation for cardiovascular, bladder, bowel and sexual function in chronic spinal cord injury: The **Krassioukov Lab** is investigating whether non-invasive spinal cord stimulation can improve cardiovascular, bladder, bowel, and sexual function in people with chronic SCI. The study examines immediate responses, changes following eight weeks of therapy, and whether benefits persist after stimulation ends.

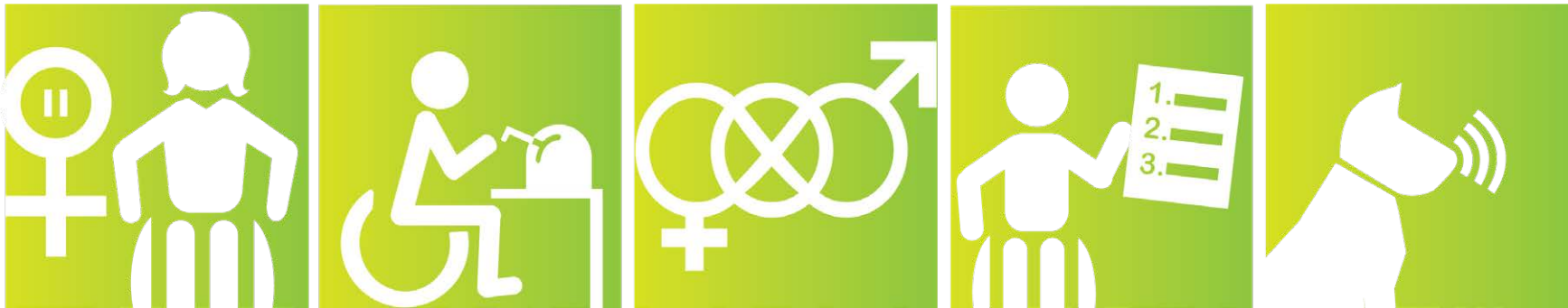
TSCS Home Study: The Krassioukov Lab is investigating the safety and feasibility of SCONE, a portable device that provides non-invasive transcutaneous spinal cord stimulation. The study assesses whether the device could eventually be used as a home-based therapy to help manage orthostatic hypotension and bowel dysfunction in people with SCI or multiple system atrophy.

Can regular use of a standing frame combined with nerve stimulation improve bladder function? The **Lam Lab** is investigating whether combining electrical leg stimulation with standing therapy can improve bladder symptoms in people with SCI. The study builds on evidence suggesting connections between sensory input from the legs and spinal pathways involved in bladder control.

Effects of rhythmic exercise on pelvic floor activity: The **Lam Lab** is investigating whether rhythmic exercises such as arm cycling and ski ergometry can influence pelvic floor muscle activity. Findings from this pilot study could inform future pelvic floor rehabilitation approaches for bladder, bowel, and sexual dysfunction after SCI.



Winston Brandt (L) and Ali Williams (R)



Completed / no longer recruiting

Measuring sedentary behaviour and pain among people with SCI: Researchers from the **West and Martin Ginis Labs** are investigating how sedentary behaviour may influence pain among people with SCI and whether interrupting sitting with short bursts of vigorous exercise could help. Participants have their physical activity and pain tracked over two weeks alongside laboratory health and fitness assessments.

Solving SCI Pain: Created and led by **Robert Buren**, a PhD candidate with lived experience of SCI and neuropathic/chronic pain and member of **Dr. Kathleen Martin Ginis's research team**, this online program is designed to help people with SCI better manage neuropathic and chronic pain. Participants receive group education and one-on-one coaching focused on neuroscience-informed, brain- and body-based pain self-management strategies.

Understanding experiences with deployable ramps and platform to vehicle gaps: Researchers from **Dr. Jaimie Borisoff's research team** investigated how effectively deployable ramps and platform-to-a-vehicle gaps support safe and accessible public transit use. The study examined features such as gap dimensions and visibility to help develop evidence-based guidelines for more inclusive transportation systems.

Youth with SCI and their experiences with physical activity: Researchers in **Dr. Andrea Bundon's Lab** explored how youth with SCI and their parents experience physical activity, including factors that support or limit participation. Findings will help inform policies, programs, and resources that better support inclusive physical activity for youth with SCI.

Access to Fly: Researchers from **Dr. William Miller's Lab**, in collaboration with U.S. and Canadian partners, are exploring the air travel experiences and accessibility needs of people with SCI. Findings will inform user-based recommendations and training resources for airline and airport personnel.

National survey to explore opinions about a new experimental treatment under development for spinal cord injury that involves biomaterials: **The Mend the Gap research team** gathered perspectives from people with lived experience of SCI on an experimental treatment combining drugs with an injectable biomaterial designed to support nerve regrowth. The survey explored participants' views on the potential benefits and risks of this emerging treatment.

Menopause and spinal cord injury: Researchers from **Dr. Stacy Elliott's research team** explored the questions people with SCI/D and healthcare professionals had about perimenopause and menopause. Through an online survey and workshops, the study identified priorities for future research, care, and education. Findings were included in ***MENOPAUSE & SPINAL CORD INJURY Co-creating priorities for clinical practice, research and knowledge translation*** (see page 7).

Low oxygen therapy as a cardiac treatment for improving 24-hour blood pressure stability: Researchers from **Dr. Chris West's Lab** investigated cardiovascular responses to low oxygen therapy in people with complete and incomplete cervical SCI. The study examined whether repeated exposure to controlled periods of reduced oxygen can improve cardiovascular function and 24-hour blood pressure stability.

Usability of a novel alternative to the universal cuff: The OmniCuff. Researchers from **Dr. Ben Mortenson's research team** evaluated the OmniCuff, a device designed to help people with limited hand function perform everyday activities. Participants tried the device at home for two weeks and provided feedback on its usability and potential impact on independence.

PleasureABLE 2.0: participating in sexual activities after spinal cord injury: Researchers from **Dr. William Miller's research team** invited people with SCI and their partners to evaluate PleasureABLE 2.0, an updated sexual adaptation manual supporting sexual participation and well-being after SCI. Feedback will help make the resource more relevant, inclusive, and reflective of diverse lived experiences.

Can you teach a Robot Dog new tricks? Exploring perspectives of wheelchair users on the usability, acceptability, and potential benefits of a robotic dog: Researchers from **Dr. Ben Mortenson's research team**, working with **UBC Occupational Therapy and BCIT**, explored wheelchair users' perspectives on robotic dogs for physical assistance, mobility, and companionship. Findings will help guide the future development and design of BCIT's robotic dog.

See icord.org/research/participate-in-a-study/ for full details about these studies.

Publication highlights

Papers from the past year that ICORD researchers are most excited about:

Mike Berger

Debenham MIB*, Ogalo E*, Wu H, Doherty C, Bristol S, Brown E, Stashuk DW, Berger MJ. Evaluating motor unit properties after nerve transfer surgery. J Neurol Sci. 2025 May 15;472:123438. doi: 10.1016/j.jns.2025.123438. Epub 2025 Feb 22. PMID: 40068242.

This paper shows that reinnervation after nerve transfer is sub-optimal, providing foundational data for our project to augment nerve transfer surgery with electrical stimulation.

Jaimie Borisoff

Kryt G, Dougall R, Borisoff J. BCIT's BEAST wheelchair takes on Cybathlon with power, precision, and pilot-led design. Sci Robot. 2025 Sep 17;10(106):eab1340. doi:10.1126/scirobotics.aeb1340. Epub 2025 Sep 17. PMID: 40961213 Review.

This publication provides details of our Cybathlon-winning wheelchair design.

Andrea Bundon

Herrick SSC, Bennett EV, & Bundon A. Feeling "not enough" or "too much": Exploring how LGBTQ+ adults experiencing disability navigate Canadian health contexts. Journal of Health Psychology. 2025 Nov; 30(13):4075-4090. doi: 10.1177/13591053251327263.

This work was led by SSHRC-funded postdoctoral fellow Shannon Herrick. While there is extensive research on health disparities experienced by people with disabilities and LGBTQ+ communities, research often overlooks the unique experiences of people who belong to both. This study explored how disability, gender, and sexuality intersect to shape experiences of accessing healthcare. A key finding was that participants often felt they had to 'mask' or downplay aspects of their identities in different healthcare settings. For example, when seeking disability-related care, some tolerated being misgendered or withheld their queer identities. In sexual or reproductive healthcare settings, others felt they needed to appear 'more able' to avoid concerns that their impairment or chronic condition could limit access to services.

Newton Cho

Cho N. Targeting the brain after spinal cord injury: Targeted deep brain stimulation improves walking after injury. Science 2025. doi: 10.1126/science.aea0845.

This essay won the **Science & PINS Prize for Neuromodulation**. It provides a glimpse into the exciting possibilities of neuromodulation for spinal cord injury. SCI disrupts communication between the brain and spinal circuits. This paper suggests that even after the spinal cord is injured, there may be an opportunity to improve function by changing how the brain communicates with the remaining spinal circuitry.



Peter Crompton

Al-Salehi L, Siegmund GP, Partovi R, Crompton PA. In Vivo Cervical Spine Posture Changes During Non-impact Inverted Freefalls. *Annals of Biomedical Engineering*. 2026 doi:10.1007/s10439-025-03917-6.

This human subject study determined the posture of human volunteers that were subjected to an impending head first impact. This is critical information for any group or person contemplating methods to prevent cervical spine fractures and spinal cord injuries in head first impacts.

Ashley Dalrymple

R Bose, BA Petersen, D Sarma, B Barra, AC Nanivadekar, TJ Madonna, MF Liu, I Levy, ER Helm, VJ Miele, LE Fisher, DJ Weber, AN Dalrymple, "Changes in muscle activation and joint motion during walking after transtibial amputation with sensory feedback from spinal cord stimulation: a case study", *Journal of Neural Engineering*, vol 22(6), 2025.

In this work, we found that providing sensory feedback from a missing limb can lead to lasting changes in muscle activation and joint motion. We showed that muscle antagonist co-contractions were reduced, and increased activity of the tensor fasciae latae muscle corresponded with increased pelvic obliquity range of motion.

Stacy Elliott

Elliott S, Birkhäuser V, Courtois F, Gül M, Ibrahim E, Kiekens C, New PW, Ohl DA, Fode M. Sexual and reproductive health in neurological disorders: recommendations from the Fifth International Consultation on Sexual Medicine (ICSM 2024). *Sex Med Rev*. 2025 Oct 4;13(4):456-470. doi: 10.1093/sxmrev/qaef030. PMID: 40728529.

Being Co-Chair of this international committee, this paper highlights my unique and respected lifelong expertise in neurological sexual health to address a historically under-recognized yet critical component of neurological rehabilitation and lifelong care. By translating the best available evidence into practical clinical recommendations, this work advances patient-centred, inclusive, and equitable sexual health care across neurological populations, reinforcing ICORD's commitment to quality of life, interdisciplinary collaboration, and global research leadership.

Janice Eng

Peters S, Hung SH, Bayley MT, Best KL, Connell LA, Donkers SJ, Dukelow SP, Ezeugwu VE, Milot MH, Sakakibara BM, Sheehy L, Wong H, Yang Y, Yao J, Eng JJ. Safety and effectiveness of the Walk 'n Watch structured, progressive exercise protocol delivered by physical therapists for inpatient stroke rehabilitation in Canada: a phase 3, multisite, pragmatic, stepped-wedge, cluster-randomised controlled trial. *Lancet Neurol*. 2025;24:643-655.

This paper, led by my post-doc, was published in the high impact journal **Lancet Neurology** (impact factor 45). 12 sites across Canada participated, with many smaller and rural sites. Importantly I mentored 6 young assistant professors in operating their first RCT at their local site. This is the largest stroke exercise trial in the world to date and one of the few phase 3 trials. It is also one of the few pragmatic trials (only 1% of trials are pragmatic by definition). Also, the results showed that a higher intensity, structured and progressive exercise resulted in clinically and significant walking and quality of life improvements. We have another paper showing that these effects were largely retained at 1 year post-stroke – demonstrating that what you do early post-stroke (in the first 2 months) makes a difference at 1 year post-stroke. The protocol has been uptaken across Canada. Colleagues have submitted a grant to customize the protocol to the UK NHS setting. We are also showing the protocol "Walk n Watch" at the upcoming Canadian Stroke Congress in a symposium.



Heather Gainforth and Femke Hoekstra

Gainforth, H.L., Shwed, A., Walters, A., Anderson, K.D., Chernesky, J., Hoekstra, F., Larsen, C., Laskin, J. (In Press March 2026). Meaningful Engagement in Exercise Intervention Research Involving People with Spinal Cord Injury: Seven Essential How-To Recommendations. Topics in Spinal Cord Injury Rehabilitation. <https://doi.org/10.1080/10790268.2026.2644718>.

This paper sets bare minimums that outline how research teams engaging in exercise intervention research should consider meaningful engagement in their work. It provides actionable strategies that can support research teams to meaningfully engage.

David Granville

Extracellular Granzyme B Mediates the Degradation of Collagen XVII in Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis.

Lane M, Aubert A, Prudova A, Liu F, Russo V, Jung K, Khosravi-Hafshejani T, Zhao H, Crawford RI, Phillips E, Granville DJ. J Invest Dermatol. 2025 Sep;145(9):2337-2340. doi: 10.1016/j.jid.2025.02.140. Epub 2025 Mar 6. PMID: 40057266.

In this study, we establish a novel mechanism for GzmB in Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis, a severe, potentially-fatal blistering condition that can also present in young children, providing evidence supporting GzmB as a potential therapeutic target. This project is pursued in collaboration with Dr. Elizabeth Phillips, who is a leading researcher in Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis and is led by PhD student, Michael Lane.

Andrei Krassioukov

Walter M, Krassioukov AV, Nightingale TE. Managing autonomic dysreflexia during urological care in individuals living with spinal cord injury. Nat Rev Urol. 2025 Nov;22(11):723-724. doi: 10.1038/s41585-025-01026-6. PMID: 40195548. (IF 14.6)

This high-impact review addresses autonomic dysreflexia (AD), a potentially life-threatening complication affecting individuals with spinal cord injury, within the context of routine urological care where the risk is greatest. Published in Nature Reviews Urology, means that this article reaches a broad international audience and extends autonomic science beyond PM&R and into urological practice, enhancing patient safety, raising clinical awareness, and promoting interdisciplinary standards of care worldwide.

Brian Kwon

Shen Z, Feng B, Lim WL, Woo T, Liu Y, Vicenzi S, Wang J, Kwon BK, Zou Y. Astrocytic Ryk signaling coordinates scarring and wound healing after spinal cord injury. Proc Natl Acad Sci U S A. 2025 Apr 15;122(15):e2417400122. doi:10.1073/pnas.2417400122. Epub 2025 Apr 10. PMID: 40208942; PMCID: PMC12012454.

This paper is exciting because it demonstrates how human tissue from the Biobank can help in the translation of novel therapeutics. Here, we not only demonstrated that the therapeutic target (RYK) was expressed in the human spinal cord, but we also defined the time window for its expression. This information then informs the design of a clinical trial by defining when human participants should receive the treatment.

Tania Lam

We are excited about our emerging data characterizing the nature of reflexes connecting afferents from the lower limb (foot) to the pelvic floor muscles. We have presented preliminary data of this work in the past year, and currently have manuscripts in preparation. Our data indicate that the excitability of the pelvic floor muscles is directly modulated by sensory input from the bottom of the foot, and it is specific to that area (i.e. similar modulation is not seen if we stimulate the top of the foot). This presents opportunities to design rehabilitation strategies exploiting these connections in individuals with SCI who may experience weakness in their pelvic floor muscles affecting their lower urinary tract function.

Corree Laule

Joseph TS, Liu H, Kolind SH, Zhao G, Sun P, Carruthers R, Schabas A, Sayao A-L, Devonshire V, Tam R, Moore GRW, Li DKB, Traboulsee A, Vavasour IM, Laule C. Correlations of myelin, axon, and inflammation metrics from multi echo T2 relaxation and multi-shell diffusion imaging in multiple sclerosis and healthy controls. *Mult Scler Relat Disord*. 2025 Dec;104:106696.

This study compared advanced MRI measures intended to reflect myelin damage, axon loss, and inflammation in people with MS and healthy controls. Overall, the measures were often related in expected ways, but some markers that were supposed to reflect the same tissue feature did not agree very strongly, suggesting that these MRI techniques provide overlapping but not interchangeable information about MS tissue damage. It also cautions that some MRI changes previously interpreted as inflammation may instead reflect edema or tissue loss.

Kathleen Martin Ginis

Martin Ginis, K.A., Dix, G. U., Gee, C., Hoekstra, F., Islam, H., Jevdjovic, A., Olsen, K., Palmer, K., Todd, K., Tong, B., Townson, A., Ubeda-Colomer, J., & Kramer, J.L.K. (2026). A Comparison of Biopsychosocial Features of Chronic Neuropathic versus Musculoskeletal Pain in Adults with Spinal Cord Injury: Baseline Cross-Sectional Data from the EPIC-SCI Trial. *Topics in Spinal Cord Injury Rehabilitation*. E-pub ahead of print. <https://doi.org/10.46292/sci25-00033>.

This paper looks at data from the first trial to collect data at the ICORD-O and ICORD-V sites—a true cross-campus collaboration. As if that's not exciting enough, this study is also the first to compare and show differences in a set of biopsychosocial variables across people with neuropathic pain and those with musculoskeletal pain.

William Miller

Smith EM, Tregobov N, Miller WC. A Feasibility Study of a Shared Control Powered Wheelchair Training Program for Individuals with Spinal Cord Injury. *Spinal Cord*. 2025 Jan; 64(1) 40–45. doi: 10.1038/s41393-025-01134-5. PMID: 41225155.

Interprofessional team of researchers lead to the ground work of creating truly novel and innovative technology that was a component of the intervention that was tested.

Funded by an ICORD Seed grant.

Chris Moraes

O'Brien, S., Li, C., Trana, R., Hoesli, C.A*, Moraes, C.*, "Micropocket-based differentiation system to streamline and scale stem cell-derived pancreatic islet production", *ACS Biomaterials Science and Engineering* 11, 8, 5096–5106 (2025).

We designed a simple microfabricated system that allows high-throughput cartridge-based production and biomanufacturing of stem-cell derived organoids, with precise control over fluidic media exchange and shear stress over several weeks in culture.

Ben Mortenson

Labbé, D., Yao, D. P., Scales, T., McCain, H., Miller, W.C., & Mortenson, W.B. (2025). Inclusion of People With Disabilities in Public Transportation: A Case-Study Analysis of Canada and U.S. Policies. *Journal of Disability Policy Studies*. (Advance online publication). <https://doi.org/10.1177/10442073251370266>.

This comparative policy analysis about the inclusion of people with disabilities in public transit in Canada and the United States "showed that policies in the United States and Canada mainly focused on the built environment, the adaptations of vehicles, and the provision of services. In contrast, only a few policies covered social accessibility, such as interaction with the staff, which underscores a significant policy gap and suggests the need for more training requirements in the policies. Funding to



transport agencies for people with disabilities was also a missing piece highlighted in this comparative analysis, particularly in Canada. Policymakers need to develop funding mechanisms to ensure a better implementation of accessibility in services and infrastructure.”

Tom Oxland

Ashjaee N, Semonche A, Mikula AL, Kiss L, Anderson DE, Ignasiak D, Brown SHM, Street J, Fels S, Ward SR, Ames C, Oxland TR. Subject-Specific Musculoskeletal Modeling: The Future of Predicting and Preventing Proximal Junctional Failure in Adult Spinal Deformity. *JOR Spine*. 2025 Nov 30;8(4):e70142. doi: 10.1002/jsp2.70142. eCollection 2025 Dec.

This is a position paper on how to address a major complication in adult spinal deformity surgery. The paper is the result of a symposium that we organized in July 2024 and then hosted a half-day meeting at ICORD. The co-authors include colleagues from UCSF, UCSD, Guelph, Harvard, ETH-Zurich and UBC.

Dena Shahriari

Sabouri, Maziar, et al. “Enhancing thyroid scintigraphy classification with diffusion based augmentation.” *Medical Imaging 2026: Computer-Aided Diagnosis*. Vol. 13926. SPIE, 2026.

This study uses AI to enhance the imaging and reducing radiation. It is also great to see how our smart biomaterials lab is integrating AI in research.

Wolfram Tetzlaff and Cheryl Wellington

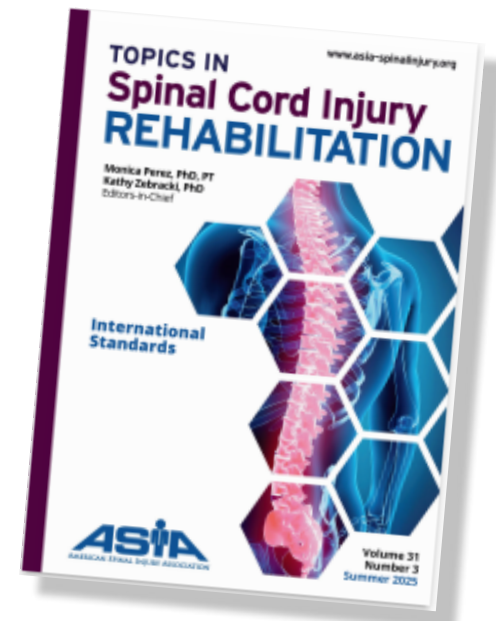
BR Kondiles, J Fan, WH Cheng, C Wellington, W Tetzlaff (2025) Age and Sex Affect the Chronic Trajectory of Plasma Neurofilament Light and Glial Fibrillary Acidic Protein Levels in a Murine Thoracic Contusion Spinal Cord Injury Model. *Topics in Spinal Cord Injury Rehabilitation* 31 (2), 125-134 doi: 10.46292/sci25-00031

This work introduces a powerful new dimension to preclinical spinal cord injury (SCI) research by demonstrating that blood-based biomarkers can be used to track injury and recovery in mouse models. Importantly, the findings reveal that age and sex significantly shape biomarker responses, underscoring the need to account for biological variability when interpreting injury outcomes and evaluating therapies in animal models of SCI. The observation that these biomarkers also increase with normal aging, even in the absence of injury, adds an important layer of nuance and points to shared mechanisms with neurodegenerative processes. Together, this work lays critical groundwork for standardized and clinically relevant biomarker strategies in SCI research, with the potential to accelerate therapeutic development and improve the translation of preclinical findings to human studies.

Darren Warburton

Edwards JD, Li Z, McFarlane P, Rabi DM, et al. Canadian Brain and Heart Clinical Practice Guideline. *CMAJ*. 2026;198(12):E425–E39. doi: 10.1503/cmaj.251137. <https://doi.org/10.1503/cmaj.251137>

This work is especially meaningful because it reflects a national, collaborative effort to improve integrated prevention and care for conditions that commonly overlap across cardiovascular, cerebrovascular, cognitive, and mental health domains. I contributed to the guideline through the national consensus process and as a member of the health behaviour change subgroups. The work was coordinated through Dr. Sheldon Tobe and C-CHANGE, continuing a collaboration I have maintained for more than 15 years. The guideline development followed an AGREE II informed process, including systematic



evidence reviews, a national consensus conference, and final evidence grading and ratification. What is exciting about this publication is its scope and practical relevance. The guideline addresses priorities such as blood pressure targets, depression screening after heart attack or stroke, and dementia screening in heart failure. It also uses a patient-informed, equity-focused approach intended to be applicable across urban, rural, and remote settings.

Chris West

Ahmadian M., Erskine E., & West CR*. (2025). Cardiac neuromodulation with acute intermittent hypoxia in rats with spinal cord injury. *The Journal of physiology*, 603(7), 2139–2156.

This is one of the first papers to show that we can use an emerging therapeutic (intermittent hypoxia) as a treatment for heart dysfunction after experimental spinal cord injury. This is exciting because we don't have any other treatments for heart dysfunction after SCI. Moreover, intermittent hypoxia is widely becoming used to improve motor function post-SCI and this research expands the possibilities for targets of intermittent hypoxia.

Stephanie Willerth

da Silva, V.A., Yu, B., and Willerth, S.M. Early-Stage Material Properties as Predictors of Neural Bioink Performance during Extrusion 3D Bioprinting. *Biofabrication*. 2026. 18 (2). 025002.

In this study, we used machine learning to optimize our bioinks.

David Wilson

*Emily S. Sullivan, Andrew Yung, Jessica Küpper, Kirsten Bale, Piotr Kozlowski, David R. Wilson. Relationship between magnetization transfer ratio and axial compressive strain in tibiofemoral articular cartilage. *Journal of the Mechanical Behavior of Biomedical Materials*. 2025: Volume 166, 106937.

This study shows promising linkage between imaging and mechanics.

See *Appendix: Selected Publications by ICORD Principal Investigators* for more publication information.

People

Researcher and staff highlights

Dr. Andrei Krassioukov was honoured with a lifetime achievement award from the *American Spinal Injury Association (ASIA) lifetime achievement award*. The Lifetime Achievement Award is the highest honor bestowed by ASIA to an individual recognized for significant contributions to the world of spinal cord injury care.

Three Principal Investigators received UBC Faculty of Medicine Awards:

Dr. David Granville was recognized for *Excellence in Clinical or Applied Research*, **Dr. Bonita Sawatzky** for *Advancement of Equity, Diversity and Inclusiveness*, and **Dr. Janice Eng** for *Service to the University and Community*.

Dr. Sawatzky was also named the *Canfield Distinguished Scholar in Patient Partnerships for UBC*. In this role, Dr. Sawatzky supports research, as well as teaching and outreach initiatives in patient partnerships in health professional education.

Dr. Daniele Ferrari (Granville Lab) and **Dr. Alanna Shwed** (Gainforth Lab) received 2025 *Research Trainee Awards* from Michael Smith Health Research BC! These awards support talented postdoctoral researchers to build their careers in BC. Research trainees increase the productivity of their teams and help drive discoveries that improve the health of people and communities.

Two members of the ICORD Administrative Team reached a significant milestone in early 2026. ICORD Finance Coordinator **Chandelle Coleman** and Communications and Administrative Manager **Cheryl Niamath** were recognized for 35 years of service to UBC.



Celebrations for Dr. Krassioukov's ASIA award

Trainee highlights

Ronald McLeod Graduate Student Stipend program launched

Made possible through a generous donation from Ronald McLeod and family, the **Ronald McLeod Graduate Student Stipend Program** provides one year of funding to graduate students supervised by ICORD Principal Investigators. The program supports innovative research and professional development, enabling students to explore new ideas and advance existing research in partnership with Vancouver Coastal Health (VCH). Funded projects must align with ICORD's mission and vision to make spinal cord injury preventable, livable, and curable, with a focus on prevention, functional recovery, and improved quality of life following spinal cord injury.

Laurence Poirier, a Masters student with Dr. Michael Berger, and **Nikolai Lesack**, a PhD student with Dr. Corree Laule, were the recipients of the studentship in 2025. Both students also received **Mitacs Accelerate Internships**.

ICORD Trainee Awards

Trainee Awards are intended to recognize attributes – beyond excellence in publications and presentations – that make a trainee or scientist outstanding. The awards highlight achievements in work in the SCI community, mentoring of trainees, and service to others.

The Gabriel Dix SCI Community Award honours individuals making a meaningful difference in the lives of people living with SCI. This year's award was presented to **Nathan Adams**. Since joining the SCI Action Canada lab in 2022, Nathan has become deeply involved in the local SCI community. For the past four years, he has been a dedicated member of the Kelowna Thunder Wheelchair Basketball Team and also volunteers with the local wheelchair rugby team, supporting events and strengthening the broader adapted sports community. His consistent involvement makes a meaningful difference in the lives of people living with SCI. The award is named for Gabriel Dix, a former trainee and staff member in the Martin Ginis Lab who died in 2021.

Named for a former ICORD Director and professor, the **Wolfram Tetzlaff Mentorship Award** recognizes postdocs and PhD students who go above and beyond to guide and support trainees. This year's award was shared by **Dr. Mathew Debenham** of the Berger Lab and **Dr. Timo Friedman** of the Hilton Lab.

Mathew Debenham is an exceptional mentor whose thoughtful, question-driven approach encourages trainees to think critically while providing support throughout their research—from project design and data collection to manuscript writing and thesis defenses. He generously mentors trainees within and beyond his lab, offering practical guidance, feedback, and career advice while fostering collaboration and learning. His commitment to trainee well-being and passion for SCI research make him a cornerstone of the lab community.

Timo Friedman is an outstanding mentor whose generosity, patience, and expertise make him an invaluable resource to trainees. He excels at making complex computational and analytical methods accessible, empowering students to confidently engage with quantitative research. He consistently supports trainees with experimental design, data analysis, writing, presentations, and career development. His thoughtful feedback and genuine investment in trainee success foster a supportive and intellectually vibrant environment.

The ICORD Trainee Outstanding Service Award recognizes trainees who make outstanding contributions to the ICORD community. This year's award was presented to **Dr. Alanna Shwed**, a postdoctoral fellow in Dr. Heather Gainforth's lab. Alanna has demonstrated exceptional dedication to ICORD throughout her PhD and postdoctoral studies. Her research has advanced meaningful engagement within ICORD and contributed to tangible changes across the organization. Beyond her research, she has served as a mentor and coordinator for the seed2STEM program at UBCO since 2022, supporting approximately 50 students and helping advance the program in the Okanagan. She also co-led the SSHRC-funded ICORD Spinal Cord Injury Research Partnership Workshop, which led to the creation of ICORD's first Meaningful Engagement Committee, on which she continues to serve. Her commitment to ICORD has made a lasting contribution to the community.



Nathan Adams



Mathew Debenham



Timo Friedman



Alanna Shwed

ICORD's Principal Investigators

Researchers whose primary research programs are closely aligned with the mission of ICORD

Dr. Michael Berger | ICORD Associate Director; Clinical Associate Professor, Physical Medicine and Rehabilitation | UBC

Dr. Jaimie Borisoff | Director, MAKE+ Applied Research, Adjunct Professor, former Canada Research Chair in Rehabilitation Engineering Design, Applied Research | BCIT / UBC

Dr. Andrea Bundon | Associate Professor, Kinesiology | UBC

Dr. Newton Cho | Clinical Assistant Professor, Surgery, Div. Neurosurgery & Orthopaedics, Div. Spine | UBC

Dr. Victoria Claydon | Professor, Biomedical Physiology and Kinesiology | SFU

Dr. Peter Crompton | Professor, Co-Director - Orthopaedic and Injury Biomechanics Group, Mechanical Engineering / School of Biomedical Engineering / Orthopaedics | UBC

Dr. Ashley Dalrymple | Assistant Professor, Physical Therapy | UBC

Dr. Stacy Elliott | Clinical Professor; Medical Consultant to Sexual Health Rehabilitation Services, VCH; Co-Director Vancouver Sperm Retrieval Clinic; Sexual Health Lead, Prostate Supportive Care Program, Prostate Centre, Psychiatry; Urologic Sciences | UBC / VCHRI / VCH

Dr. Janice Eng | Professor, Co-Director, Centre for Aging SMART, Physical Therapy | UBC / GF Strong Rehab Centre

Dr. Susan Forwell | Professor, Occupational Science and Occupational Therapy; Research Associate, Neurology, Faculty of Medicine | UBC / VCH

Dr. Heather Gainforth | ICORD Associate Director, Meaningful Engagement; Associate Professor, School of Health and Exercise Sciences | UBCO

Dr. David Granville | Professor, Pathology and Laboratory Medicine | UBC

Dr. Brett Hilton | Assistant Professor, Cellular and Physiological Sciences | UBC

Dr. Veronica Hirsch-Reinshagen | Assistant Professor, Pathology and Laboratory Medicine | UBC

Dr. Femke Hoekstra | Assistant Professor, Medicine, Div. Social Medicine | UBCO

Dr. John Kramer | ICORD Associate Director, Operations; Associate Professor, Anesthesiology, Pharmacology, and Therapeutics | UBC

Dr. Andrei Krassioukov | Patrick Reid Chair in Spinal Cord Rehabilitation Research; ICORD Associate Director, Rehabilitation Research; Professor, Physical Medicine and Rehabilitation | ICORD/UBC

Dr. Brian Kwon | ICORD Director, Clinical Research; Professor / Canada Research Chair / Spine Surgeon / Research Director, Spine Research Program, Orthopaedics, Medicine | UBC / VCH

Dr. Tania Lam | Professor, Kinesiology | UBC

Dr. Cornelia Laule | ICORD Associate Director, Education and Training; Professor, Radiology; Pathology and Laboratory Medicine; Physics & Astronomy | Vice Chair, Research - Radiology | Director, UBC MRI Research | Co-Chair, seed2STEM Summer Research Program for Indigenous Youth | UBC

Dr. Zhenwei Ma | Assistant Professor, Surgery | UBC

Dr. Kathleen Martin Ginis | Professor, Department of Medicine; School of Health and Exercise Sciences | Director, SCI Action Canada | Director, Centre for Chronic Disease Prevention and Management | UBCO

Dr. William Miller | Professor, Occupational Science and Occupational Therapy, Medicine | UBC

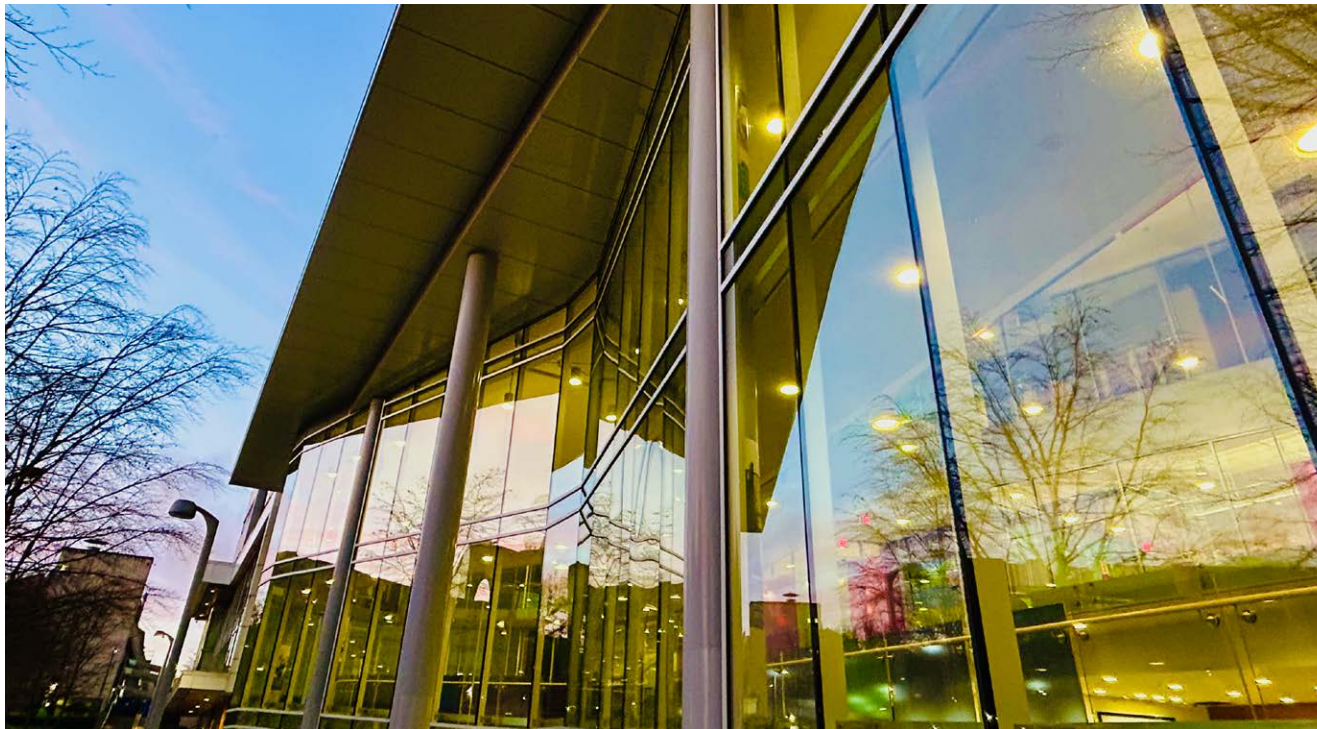
Our Vision:

Make spinal cord injury preventable, livable, & curable.

Our Mission:

Conduct research and training towards the development and translation of more effective strategies to promote prevention, functional recovery, and improved quality of life after spinal cord injury.

Dr. Ben Mortenson | Professor and Head, Occupational Science and Occupational Therapy | UBC, SFU
 Dr. Ipek Oruc | Associate Professor, Ophthalmology | UBC
 Dr. Tom Oxland | Professor, Co-Director - Orthopaedic and Injury Biomechanics Group Orthopaedics; Mechanical Engineering | UBC
 Dr. Matt Ramer | Lyall Knott BC Neurotrauma Professor; Associate Professor, Zoology; Neurosurgery | UBC
 Dr. Babak Shadgan | Assistant Professor, Orthopaedics | UBC / VCH
 Dr. Dena Shahriari | Assistant Professor, Orthopaedics; School of Biomedical Engineering | UBC / VCH
 Dr. Carolyn Sparrey | Associate Professor, Mechatronics System Engineering | SFU
 Dr. Wolfram Tetzlaff | Professor, Zoology; Surgery | UBC
 Dr. Darren Warburton | Professor, Kinesiology; Experimental Medicine | UBC
 Dr. Cheryl Wellington | Professor and Vice Chair, Research, Pathology and Laboratory Medicine | UBC
 Dr. Chris West | ICORD Associate Director; Associate Professor, Cellular and Physiological Sciences | UBCO
 Dr. Stephanie Willerth | Canada Research Chair in Biomechanical Engineering; Professor, Mechanical Engineering and Medical Science | UVic
 Dr. David Wilson | Professor, Orthopaedics | UBC
 Dr. Lyndia Wu | Assistant Professor, Mechanical Engineering | UBC



Drs. Berger, Cho, Crompton, Dalrymple, Elliott, Granville, Hilton, Hirsch-Reinshagen, Kramer, Krassioukov, Kwon, Lam, Laule, Ma, Moraes, Mortenson, Oruc, Oxland, Ramer, Shadgan, Shahriari, and Tetzlaff are based in the Blusson Spinal Cord Centre a unique facility dedicated to advancing world-leading integrated research and care for people with SCI.

Investigators

Researchers whose primary research programs are peripherally aligned with the mission of ICORD

Dr. Phil Ainslie, Centre for Heart, Lung & Vascular Health, UBC
Dr. Mohsen Akbari, Mechanical Engineering, UVic
Dr. Hugh Anton, Physical Medicine & Rehabilitation, UBC/ VCH
Dr. Gary Birch, Neil Squire Society
Dr. Sean Bristol, Surgery, UBC
Dr. Erin Brown, Plastic Surgery, UBC/VCH
Dr. Mark Carpenter, Kinesiology, UBC
Dr. Karen Cheung, Electrical and Computer Engineering, UBC
Dr. Anita Delongis, Psychology, UBC
Dr. Christopher Doherty, VCH
Dr. Kayla Fewster, Kinesiology, UBC
Dr. Josh Giles, Mechanical Engineering, UVic

Dr. Tal Jarus, Occupational Science & Occupational Therapy, UBC
Dr. Shannon Kolind, Neurology, UBC
Dr. Jasmin Ma, Kinesiology, UBC
Dr. John Madden, Electrical and Computer Engineering, UBC
Dr. Tim O'Connor, Kinesiology, UBC
Dr. Scott Paquette, Surgery, UBC/VCH
Dr. Jacqueline Quandt, Pathology and Laboratory Medicine, UBC
Dr. Mypinder Sekhon, Critical Care Medicine, UBC/VCH
Dr. Bill Sheel, Kinesiology, UBC
Dr. John Street, Orthopaedics, UBC/VCH
Dr. Andrea Townson, Physical Medicine and Rehabilitation, UBC/ VCH

Associate Members

Researchers who collaborate with ICORD PIs

Dr. Tim Bhatnagar, BCCHR
Dr. Mike Boyd, VCH
Dr. Romeo Chua, UBC
Dr. Jens Coorsen, U Western Sydney
Dr. Kerry Delaney, UVic
Dr. Femke Hoekstra, UBCO
Dr. Ryan Hoiland, UBCO
Dr. Andy Hoffer, SFU
Dr. Judy Illes, UBC
Dr. Tim Inglis, UBC
Dr. Megan McGillivray, St. Francis Xavier U
Dr. Mohamed Javan, Tarbiat Modares U

Dr. Andrew Laing, U Waterloo
Dr. Nan Liu, Peking U
Dr. Freda Miller, UBC
Dr. Michael Negraeff, VCH
Dr. Tom Nightingale, U Birmingham
Dr. Aaron Phillips, U Calgary
Dr. Soshi Samejima, U Washington
Dr. Bonita Sawatzky, UBC
Dr. Miriam Spering, UBC
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Dr. Wayne Moore
Dr. Catherine Pallen
Dr. John Steeves (Founding Director)
Dr. E. Paul Zehr



is a world-leading health research centre focused on spinal cord injury. From the lab-based cellular level of understanding injury to rehabilitation and recovery, our researchers are dedicated to the development and translation of more effective strategies to promote prevention, functional recovery, and improved quality of life after spinal cord injury. Located at Vancouver General Hospital in the Blusson Spinal Cord Centre, ICORD is supported by the Rick Hansen Foundation, UBC Faculties of Medicine and Science, and Vancouver Coastal Health Research Institute.



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Thank you for reading our 2025-26 Annual Report.

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