



ANNUAL REPORT 2024-25

# The Power of Networks

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# Praxis Vision & Mission

## OUR VISION

A world without paralysis after spinal cord injury.

## OUR MISSION

To lead collaboration across the global SCI community by providing resources, infrastructure and knowledge. Also, to identify, develop, validate and accelerate the translation of evidence and best practices to reduce the incidence and severity of paralysis after spinal cord injury, reduce long-term costs and improve healthcare outcomes and the quality of life for those living with spinal cord injury.

## OUR VALUES

- Teamwork
- Global Collaboration and Partnerships
- Innovation for Impact
- Integrity and Trust
- Exceptional Outcomes

## WHAT WE DO

Praxis is a Canadian-based not-for-profit organization that leads global collaboration in spinal cord injury (SCI) research, innovation and care. We accelerate the translation of discoveries and best practices into improved treatments for people with spinal cord injuries.

Our work is driven by the priorities of people with SCI and led by our three teams—PLEX (persons with lived experience), Research & Care, and Innovation.

Success means IMPACT; we measure our success through how we make a difference and improve quality of life for people living with SCI and the SCI community.

## PRAXIS LAND ACKNOWLEDGEMENT

Praxis Spinal Cord Institute would like to acknowledge that the land on which we are located is on the unceded traditional territory of the Coast Salish Peoples, specifically the shared traditional territories of the Skwxwú7mesh (Squamish), səlilwətał (Tsleil-Waututh), and xʷməθkʷəy̓əm (Musqueam) First Nations.

# The Power of Networks

## A JOINT MESSAGE FROM THE CEO & CHAIR

At Praxis, we know that the key to solving the challenges of spinal cord injury (SCI) doesn't rest with any one person, project, or organization. True progress comes from the power of collaboration—bringing together researchers, clinicians, innovators, policymakers, and those with lived experience to create impactful solutions.

The power of our networks was on full display in 2024. From advancing innovation and strengthening health systems, to supporting inclusive research and amplifying the voices of lived experience, Praxis served as a catalyst, bringing people together to generate impact.

We advanced medical technologies through our Innovation Programs. To date, Praxis has supported 40 ventures, including 10 in 2025, through our SCI Innovation programs, assisting promising ideas to achieve tangible SCI outcomes. With over 3,000 hours of mentorship and direct input from more than 450 people with lived experience, our impact is measurable with 15 products now in use by clinicians and people living with SCI, with more on the horizon.



**Bill Barrable**  
Chief Executive Officer



**Sean Gjos**  
Chair, Board of Directors

Our partnerships on climate equity helped safeguard the well-being of individuals vulnerable to extreme heat. In partnership with Gore Mutual, we expanded the SCI Climate Futures Initiative to officially launch Phase 2, which encompasses piloting environmental and portable cooling technologies in homes to safeguard the well-being of individuals who are vulnerable to extreme heat.

Our PLEX (Persons with Lived Experience) Program grew in reach and influence in a transformative year. Our regional workshops expanded across BC with more than 270 clinicians being trained using care models that are informed by insights from individuals living with SCI. Clinicians shared how these workshops are reshaping their approach to care.

The PLEX Fellowship Program, launched this year, offered individuals with SCI to become leaders in research, innovation, and health system change. Fellows contributed to Praxis programs, shadowed experts, and influenced innovation. Their leadership will influence the future of SCI care, not just through advocacy, but also through helping to design systems to improve the lives of people with SCI.

The Praxis-led Canadian Spinal Cord Injury Registry (RHSCIR) is also a direct reflection of collaboration. Celebrating two decades of impact, the registry has grown to 30 sites across Canada, supporting a connected national effort to advance SCI outcomes. In 2024, the RHSCIR Imaging sub-study continued to grow, creating the first Canadian repository of spinal MRIs linked with clinical outcomes. In collaboration with top imaging scientists and clinicians, this initiative holds promise for more personalized care and enhanced diagnoses for patients whose conditions limit traditional neurological assessment.

Praxis-supported research also gained global recognition. Our research team members helped edit an issue of *Frontiers in Neurology*, featuring SCI epidemiology and care. Articles explored everything from examining neurological recovery acutely following the injury to evaluating the impact of a physical activity counseling intervention during rehabilitation and developing prediction models using machine learning. The issue has already been viewed more than 70,000 times, extending the reach of our network globally.

We are equally proud of the growth of the Activity-Based Therapy Community of Practice (ABT CoP), which now includes clinicians, researchers, and individuals with SCI from across the country. Together, they are identifying national access gaps, developing best practice guidelines, and supporting research studies to improve recovery outcomes.

Finally, Praxis was a collaborator and a changemaker in Canada's health system by helping shape the new Canadian SCI Standard for integrated rehabilitation across the continuum (CAN/HSO S3402:2024), merging acute and rehab standards into a unified, people-centered standard. This milestone underscores Praxis' role as both a collaborator and a changemaker in Canada's health system.

This report presents a snapshot of the important life-changing work taking place within our organization. Each highlighted initiative alone demonstrates innovation, courage, and progress. Taken together they become something greater: a shared ecosystem that is accelerating change to improve the lives of people with SCI.

Better SCI care is only possible because of our network. Thank you to all who contribute, especially the SCI community whose insights and vision lead the way.

# The Praxis Way

## NETWORKS DRIVING IMPACT

At Praxis, networks are central to everything we do. Success in SCI research, care, and innovation depends on sharing knowledge, uniting perspectives, and mobilizing expertise across disciplines, under a shared vision. Our approach is grounded in working together within our programs and networks to accelerate impact for people living with SCI.

Our programs are distinct but deeply interconnected. Whether it's engaging PLEX, advancing research, improving care, or driving innovation, we know that greater outcomes are achieved when networks come together to rally around common goals. This synergy fuels creativity, enhances quality, and builds a more empowered, informed, and connected community.

Praxis exists to lead global collaboration in SCI research, care, and innovation. From our home in Vancouver, we bring together researchers, clinicians, health systems, innovators, and individuals with lived experience to co-create solutions and drive progress. Our role is to identify the most urgent needs, align resources, and translate knowledge into real-world impact.

## EACH OF OUR CORE PROGRAM AREAS CONTRIBUTES TO THE SCI CARE ECOSYSTEM:

### PLEX Engagement

The voice of lived experience is foundational across our networks. Our PLEX team ensures individuals with SCI are partners in setting priorities, informing projects, and evaluating outcomes, ensuring that what we support is meaningful and relevant.

### Accelerating Research

We support studies focused on diagnostics, neuro-restorative therapies, and rehabilitation strategies that have the potential to change the trajectory of SCI recovery.

### Improving Care

Praxis collaborates with national and regional partners to develop SCI care standards, clinical guidelines, and data platforms that help improve health outcomes across the care continuum. Our goal is to support equitable, evidence-informed care for everyone affected by SCI.

### Innovation

From idea to implementation, we support a network of ventures, health system partners, and researchers working to develop technologies and approaches that move solutions from concept to community.

We believe that strong networks create stronger outcomes. By aligning priorities, and bringing the right people together, we accelerate change for those living with SCI.



Together, we go further.  
That's the Praxis way.

# Empowering Clinicians Across B.C.

## DRIVING REGIONAL ACCESS TO SCI BEST PRACTICES

Recognizing the challenges faced by people living with SCI who reside outside of major SCI centres, Praxis' regional and rural SCI Clinical Education Workshops, co-delivered by the PLEX and Care programs continued to expand its reach across British Columbia in 2024. Through a series of in-person and online workshops, and webinars, healthcare professionals are obtaining information to deliver specialized, client-centered SCI care closer to home.

Since the program's launch in the Okanagan region in 2022, it has expanded across northern B.C., the Kootenays, and Vancouver Island. To date, 38 workshops and 3 webinars have been delivered (10 in-person, 3 webinars). In total, this project was attended by 547 clinicians this fiscal year alone (270 at workshops and 277 at the webinars).

### PARTICIPANT FEEDBACK HIGHLIGHTS THE PROGRAM'S IMPACT:



"Hearing directly from people with SCI helped me understand which healthcare intervention were most helpful, which were harmful, and what truly made a difference in recovery."

"This workshop has made me more client-centered in my approach."

"It's eye-opening to learn what PLEX participants prioritize and how we can better align our care."

The project has been further strengthened by partnerships, including GF Strong Rehabilitation Centre, which supports webinar development and delivery. In 2024, the project was also featured at the 6th annual Putting Patients First Conference and the BC Quality Forum, highlighting how patient-partnered workshops in regional areas of BC help enhance clinician confidence in SCI care.

Designed for occupational therapists, physiotherapists, nurses, and other allied health providers, the workshops focus on practical, evidence-based approaches to managing secondary complications and optimizing outcomes for individuals with SCI. Sessions also raise awareness of provincial resources and emphasize the value of lived experience by including voices of people living with SCI, ensuring care is grounded in real-world insight.

### Workshop topics include:

- SCI 101
- PLEX Perspectives
- Pressure Injuries
- Bladder & Bowel Management
- Sexual Health
- Shoulder & Upper Extremity Management
- Specialized Equipment
- Indigenous Perspectives

As the project continues to expand, it's reshaping how healthcare providers understand and respond to the needs of the SCI community. By strengthening provider confidence and clinical knowledge, this project is helping ensure people living with SCI in regional and rural areas receive care that is specialized, consistent, and grounded in lived experience.

38 Workshops  
Conducted

547 Clinicians  
Engaged



# Leadership in Lived Experience

## THE PLEX FELLOWSHIP PROGRAM

In 2024, Praxis proudly introduced the PLEX Fellowship Program, a first-of-its-kind initiative designed to equip people living with SCI with the skills, mentorship, and experience to become leaders in patient advocacy, research, and innovation development.

During its inaugural year, PLEX Fellows worked directly with Praxis teams to deepen their leadership capacity and gain practical exposure to real-world innovation and research initiatives. Fellows participated in Praxis Innovation programs (Incubate and Accelerate) to understand start-up development, business strategy, and how to embed the lived experience perspective throughout the innovation lifecycle.

Participants also shadowed Praxis' world-leading PLEX experts to learn effective strategies for integrating lived experience in a way that meaningfully influences research and healthcare innovation.

One of the Fellowship's first graduates, Chantelle Grafton, has already stepped into a leadership role, serving as PLEX lead on our Respiratory Care Pathways project. With ongoing mentorship from the Praxis PLEX team, Grafton is applying the knowledge and skills she gained through the Fellowship to ensure the project reflects the true needs of end-users.



240+ PLEX engagements  
in projects annually



Having a PLEX leader embedded in research, clinical design, and innovation conversations helps ensure better outcomes.

Beyond her current placement, Grafton is also a mentor to new Fellowship participants and plans to use her skills to expand SCI-related healthcare and medical education initiatives locally in Northern British Columbia.

“With the Fellowship program, we wanted to create a model where individuals with the interest and aptitude to engage in these initiatives could work alongside experienced PLEX leaders to build real-world PLEX leadership capacity,” says John Chernesky, PLEX Program Manager. “We’ve seen our intake grow in participation, and we’re excited to see our Fellows taking active roles both as project leads and mentors that improve outcomes for the SCI community.”

The Fellowship program expands on the foundational work by the North American SCI Consortium (NASCIC), which developed the SCI Research Advocacy Course (SCIRAC) to help prepare people living with SCI to act as research advocates. Praxis partnered with NASCIC to provide supplemental training to SCIRAC graduates in delivering two advanced training webinars to further develop their advocacy skills. The Fellowship program provides an opportunity for PLEX to apply these skills in a supportive, real-world setting to further enhance their growth as future PLEX Leaders.

“Incorporating the lived experience of end users is critical in the success of product development,” adds Chernesky. “Having a PLEX leaders embedded in research, clinical design, and innovation conversations helps ensure better outcomes, not just for people living with SCI, but for everyone involved.”

# Advocating for Impact

## PRAXIS STRENGTHENS SUPPORT FOR CATASTROPHIC INJURY RECOVERY THROUGH ICBC DISABILITY ADVOCACY ADVISORY GROUP

Since its formation in 2019, the ICBC Disability Advocacy Advisory Group (DAAG) has played a vital role in shaping policies and improving the customer experience within ICBC's Enhanced Care accident benefits system. Comprising members from various disability advocacy organizations, the group ensures that voices of those affected are heard. Praxis proudly holds a seat at the table, actively participating in quarterly DAAG meetings. Praxis proposed specialized education sessions tailored for ICBC's Advanced Support Recovery Specialists (ASRS) who manage catastrophic injury claims, including spinal cord injuries. Partnering with Spinal Cord Injury BC, Praxis successfully delivered two sessions last year to a total of 118 ASRS's, with additional workshops planned for the coming year—strengthening support for those navigating complex injury recovery processes.

Praxis is pleased to be a part of ICBC Disability Advocacy Advisory Group improving the customer experience within ICBC's Enhanced Care accident benefits system.



# Pushing Boundaries, Restoring Lives

## NFRF FUELS TRANSFORMATIVE RESEARCH

The New Frontiers in Research Fund (NFRF) supports bold, high-risk/high-reward interdisciplinary projects led by Canadian researchers, with the potential for profound societal impact. This year, Praxis was proudly involved with two transformative proposals addressing critical challenges in movement and mobility, each awarded \$24 million (CAD) in funding.

### **RE-MOVE: Restoring Movement Through Neuromodulation**

Led by Dr. Christian Iorio-Morin (Université de Sherbrooke), RE-MOVE is a groundbreaking initiative focused on restoring movement and independence for people living with SCI. The project is developing a next-generation neuromodulation system that uses cortical sensors, haptic gloves, and EMG sensors to detect movement intention and deliver real-time, targeted muscle stimulation. This advanced interface could enable more natural, functional control for individuals with paralysis, offering new possibilities for regaining mobility and autonomy.

An interdisciplinary team of experts in neuroscience, engineering, ethics, and law guides RE-MOVE, ensuring the project addresses both technical and human considerations. Supported by Praxis, the initiative also involves key collaborators including CIUSSS de l'Estrie – CHUS, Université de Montréal, Université Laval, University of Melbourne, University of Alberta, and Polytechnique Montréal. Additional partners include Moelle épinière et motricité Québec (MÉMO-Qc) and the Heart and Stroke Foundation of Canada.

### **Smartwear for Everyday Support**

Dr. Vivian Mushahwar (University of Alberta) is leading the development of smartwear, which will be an innovative clothing line that looks and feels like everyday garments but incorporates adaptive fibers to support posture, balance, and movement in real time. Unlike traditional braces or exoskeletons, smartwear is lightweight, washable, affordable, and co-designed with users to prioritize comfort, usability, and style.

Equipped with sensors, actuators, and AI, these garments respond to the wearer's movements, enhancing strength and reducing injury risk for three communities: older adults, individuals with neuromuscular conditions, and frontline healthcare workers. The project will unfold in three phases: postural support, arm function, and mobility - each developed in collaboration with the communities they serve.

The project brings together a diverse network of 64 researchers and collaborators from the University of Alberta (U of A) and institutions across Canada, the U.S., and Europe. The team includes fashion designers, disability advocates, engineers, artists, and researchers from eight U of A faculties.

### **Praxis: Connecting Vision with Impact**

Praxis supported both grant applications by strengthening engagement strategies and facilitating key connections with individuals with lived experience. By backing visionary researchers and centering lived experience, we continue to catalyze science and innovation that restores independence, enhances quality of life, and drives global progress in mobility research.

# Predicting Recovery, Empowering Care

## HOW PRAXIS IS USING DATA AND AI TO IMPROVE SCI OUTCOMES

At Praxis, transforming outcomes for people with SCI means more than advancing science, it means translating discovery into meaningful care. By uniting clinicians, researchers, data scientists, and people with lived experience, we are building tools that personalize recovery, guide clinical decisions, and improve quality of life.

Collecting data from 30 hospitals, RHSCIR is now driving new advances in care through the use of artificial intelligence (AI) and machine learning (ML). “Through AI and ML, we’re identifying patterns in SCI data that help us predict patient outcomes more accurately,” says Dr. Nader Fallah, Praxis’ Associate Director of AI. “These tools help clinicians give people with SCI the answers they need in moments that matter.”

Dr. Fallah is part of a multidisciplinary team developing predictive health models focused on recovery outcomes such as walking, quality of life, bladder function, and hospital readmission, among others. One standout example is the Ambulation App, a clinician-facing tool developed in partnership with Dr. Philippe Phan and The Ottawa Hospital. The app was first released in February 2022 and continues to evolve as part of ongoing efforts to improve patient outcomes and clinical workflows.

Built on RHSCIR data and a validated clinical prediction rule, the Ambulation App helps healthcare providers estimate the likelihood that someone with a traumatic SCI will walk independently one-year post-injury. Designed for practical use, the app underwent 11 revisions informed by feedback from clinicians, rehabilitation experts, and individuals with lived experience. It is available at [www.ambulation.ca](http://www.ambulation.ca) and was recently highlighted in *Frontiers in Neurology*.

“When someone sustains an SCI, they have urgent questions about their future,” explains Dr. Fallah. “While there is still room for improvement, predictive models such as the Ambulation App can help clinicians provide realistic answers and set achievable recovery goals without taking away hope. We understand how critical this clarity is for patients and families, which is why our team is continuing to enhance models such as the Ambulation app to improve its ability to predict outcomes and are also working on similar models to address other outcomes.”

These predictive models do more than inform individual care, they also help healthcare systems function more effectively. By anticipating needs and supporting evidence-based planning, Praxis’ AI tools are optimizing SCI treatment across many stages, from emergency response to rehabilitation and return to the community.

“AI and ML have the potential to transform SCI care,” says Dr. Fallah, Praxis’ Associate Director of AI. “They support earlier diagnosis, tailored treatment, and more accurate anticipation of risk complications, leading to better outcomes and lower costs. I’m grateful to be working in a field with such meaningful, life-changing impact.”



**Dr. Nader Fallah**  
Associate Director of AI, Praxis

## PRAXIS CO-EDITS LANDMARK SCI PUBLICATION IN FRONTIERS IN NEUROLOGY, SHOWCASING GLOBAL ADVANCES IN EPIDEMIOLOGY, CARE, AND AI-DRIVEN OUTCOMES

In March 2024, the *Frontiers in Neurology* journal released a special issue dedicated to the epidemiology, evidence-based care, and outcomes in spinal cord injury (SCI). Praxis' Dr. Nader Fallah, Associate Director of Artificial Intelligence, and Dr. Vanessa Noonan, Director of Research & Best Practice Implementation, co-edited the issue alongside Dr. Lisa Sharwood from the University of New South Wales, Australia. The publication features contributions from more than 114 authors.

The special issue includes 15 articles divided into two parts: the first examines the epidemiology of SCI in Canada, the United States, and China, while the second focuses on evidence-based care approaches and patient outcomes.

Notably, the issue highlights the growing role of AI and machine learning in SCI research, including the development of a web-based tool for predicting patient outcomes, and key advancements aimed at improving care.

Praxis played a pivotal role in this publication, with half of the articles stemming from research conducted in Canada. Praxis also provided funding to ensure the special issue is free and accessible. Supported by Praxis and the Canadian Government, the e-book has since garnered more than 70,000 views (May 2025).

## ISNCSCI MOBILE APP DEVELOPMENT UPDATE

Recently, Praxis advanced spinal cord injury (SCI) care by beginning to build a mobile application for the International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI). Developed for iOS and Android devices, the app will leverage the SCI classification algorithm on smartphones and tablets, allowing clinicians to provide better bedside assessments and care, even without internet access.

The ISNCSCI, developed by the American Spinal Injury Association (ASIA), is the global gold standard for determining the level and severity of SCI. However, its complexity in determining these classifications can lead to high error rates when performed manually. In 2012, Praxis addressed this by developing a computerized algorithm in partnership with the International Spinal Cord Society (ISCoS) and global experts. Since then, it has supported over 63,000 users in 157 countries through a freely available website, improving accuracy, clinical education, and research data quality.

Building on this success, Praxis began developing a mobile version to meet clinicians' need for a portable, offline-capable tool that can be used to monitor a patient's neurological recovery and support research in this area. Initial user testing began earlier this year, with broader international testing underway.

With a 2025 launch on the horizon, this tool will enhance SCI care by ensuring more accurate and timely classification, which in turn result in improved health outcomes.



369,000 Views

75,000 Users

164 Countries

# Collective Impact

## IMAGING THE FUTURE OF SCI CARE

Praxis launched the RHSCIR Imaging sub-study in 2021, which significantly expanded in 2024, as a national initiative aiming to improve how spinal cord injuries (SCI) are diagnosed, classified, and managed. The project addresses a critical challenge in clinical care: the inability to perform early neurological assessments on all patients - often due to other injuries or reduced consciousness - which can result in the loss of valuable diagnostic information and can affect treatment decisions.

By building on the Praxis-led Canadian National SCI Registry (RHSCIR), Praxis is creating a national repository of spinal MRI scans to be paired with clinical data already collected. The goal: to improve existing imaging biomarkers and identify new ones that will allow for a more precise diagnosis with the goal to increase precision in SCI diagnosis and personalized care.

“This imaging repository enables us to link routinely acquired diagnostic images to the rich clinical data RHSCIR already collects,” said Dr. David Cadotte, (University of Calgary), a spine surgeon. “It aims to enhance diagnostic accuracy and outcome prediction.”

### Powering Progress Through Collaboration

The project began with extensive discussions among spine surgeons and RHSCIR principal investigators who were motivated to be part of something meaningful. The turning point came with the engagement of Dr. Julien Cohen-Adad (Professor, Polytechnique Montréal), whose team including Jan Valošek, Post doctorate Fellow, Maxime Bouthillier, PGY4 in Diagnostic Radiology, Mathieu Guay-Paquet, Research Associate and the rest of the NeuroPoly team brought spinal cord medical imaging analysis and machine learning expertise, and Dr. David Cadotte who led the clinical integration of the project.

“Collaborating with Dr. Cohen-Adad and Dr. Cadotte galvanized the network and helped us build the technical foundation, initiate data collection, and gain real momentum. It’s a perfect example of how an idea can transform into a sustainable, impactful initiative when experts come together from different disciplines and institutions under a common goal,” Dr. Vanessa Noonan, Praxis.

Dr. Cadotte, with the Clinical Research Unit at the University of Calgary, leads the development of a complementary software application to organize and upload medical imaging in the clinical setting, with the aim of creating personalized reports, and combining imaging and clinical data to guide spinal care. This has the potential to help people with SCI and surgeons better understand the condition and track changes over time.

Dr. Cohen-Adad and his team develop the Spinal Cord Toolbox (SCT), a widely used open-source platform for SCI imaging analytics. Using data collected via the RHSCIR Imaging sub-study, a new lesion segmentation tool was developed and integrated into SCT, enabling semi-automated image analysis and reducing the need for manual segmentation. This makes analysis more consistent, and accessible for researchers and clinicians worldwide.

The tool’s broad applicability was also showcased at the The Medical Image Computing and Computer Assisted Intervention Society (MICCAI) 2024 Conference, an annual gathering that brings together leading scientists, engineers, and clinicians from various medical imaging and computer-assisted intervention fields.

“This tool’s strength lies in its accessibility and versatility. Integrated into the open-source Spinal Cord Toolbox, it supports multiple spinal pathologies and was validated using data from seven international sites, highlighting its global relevance and broad clinical impact,” said Dr. Cohen-Adad.

And, this set the stage for accelerated growth of the RHSCIR Imaging sub-study, with the following 2024 milestones.

|      |                                        |
|------|----------------------------------------|
| 12   | RHSCIR Sites Contributing Data         |
| 272  | Participants Enrolled                  |
| 500+ | MRI Scans Curated                      |
| 1    | International Workshop & Publication   |
| 3    | Conference Poster Presentations        |
| 3    | Manuscripts in Development             |
| 1    | Praxis-co Sponsored Webinar on the SCT |

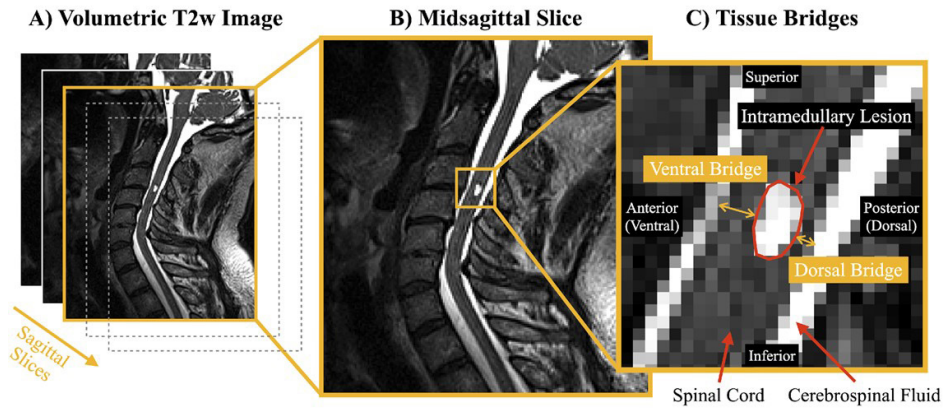


Fig. 2. Illustration of tissue bridges. A) Volumetric T2w image of a spinal cord injury (SCI) with chronic intramedullary lesion. B) Midsagittal slice used to compute the tissue bridges. C) Ventral and dorsal tissue bridges are defined as the width of spared tissue at the minimum distance from the intramedullary lesion edge to the boundary between the SC and cerebrospinal fluid.

SCIsegV2: A Universal Tool for Segmentation of Intramedullary Lesions in Spinal Cord Injury publication. Figure adapted from Karthik et al.,

**Praxis: Driving Innovation in SCI Imaging**

Praxis’s role as a convener, innovator, and data steward has been central to the study’s success. With strong infrastructure, national networks, and a strategic focus on imaging, Praxis is setting the stage for a future where all patients with SCI benefit from more accurate, inclusive, and informed care, right from the start.

# Building Momentum

## ACTIVITY-BASED THERAPY ACROSS CANADA

When Praxis identified a critical gap in access to Activity-Based Therapy (ABT) for individuals with SCI, it initiated a coordinated national response. In partnership with Dr. Kristin Musselman of the KITE Research Institute, we launched the Activity-Based Therapy Community of Practice (ABT CoP), a collaborative network of clinicians, researchers, people with lived experience, and healthcare leaders.

ABT is a promising rehabilitation approach that activates the neuromuscular system below the level of injury to support functional recovery, reduce complications, and enhance quality of life. Established in 2020, the ABT CoP is Canada's first national initiative dedicated to advancing ABT through shared learning, tool development, and collaborative leadership.

The CoP works in close alignment with Canada's spinal cord injury rehabilitation network, collaborating on initiatives such as spinal stimulation research and the use of the Standing and Walking Assessment Tool (SWAT) to target therapies for individuals with SCI.

### Since inception, the CoP has been:

- Mapping ABT programs and services nationwide to identify key gaps and strengths;
- Launching tools for education and clinical practice;
- Developing evidence & guidelines for consistent engagement tracking and outcome measurement;
- Consolidating best practices into practical resources, including an [ABT Outcome Measures Toolkit](#);
- Elevating the lived experience through collaborative working groups and knowledge exchange.

In addition to this, we support funding

and partnership opportunities. For example, in early 2025, CoP members Janelle Unger (Assistant Professor, School of Physical Therapy, Western University Principal Investigator, RED Neuro Lab, Gray Centre for Mobility & Activity, Parkwood Institute) and Hope Jervis-Rademeyer (Assistant Professor, School of Rehabilitation Science, College of Medicine, University of Saskatchewan) were awarded Praxis grants to develop national ABT best practice guidelines and an interprovincial FES cycling network.

Also of note, in 2022, Dr. Dalton Wolfe, a member of our ABT CoP, received a three-year Craig H. Neilsen Foundation grant to integrate ABT & SWAT efforts into a pragmatic trial to improve walking outcomes. The project team includes Praxis staff, SWAT, and ABT CoP members and connects the SWAT, SCI Implementation and Evaluation Quality Care Consortium (SCI-IEQCC) and ABT CoP networks.



A second evaluation of the CoP, published in early 2024, highlighted feedback from the membership. Participants praised the collaborative environment and recommended improvements such as enhanced digital platforms for resource sharing and more frequent updates highlighting research, milestones, and community profiles. There is also strong interest in expanding international collaboration with ABT leaders in the U.S., and Australia.

- Based on a consensus process, we are advancing key priorities, which include:**
- Identifying and implementing strategies to improve access to ABT and ABT-related technologies;
  - Developing an initial best practice guideline for ABT after spinal cord injury;
  - Improving engagement in ABT activities across key interest groups;
  - Implementing strategies to facilitate dialogue between hospital and community groups;
  - Creating learning resources on ABT for clinicians and people living with SCI;
  - Tracking and evaluating participation in ABT; and
  - Creating and implementing a standardized approach to evaluating ABT outcomes.

With continued investment, the ABT CoP is well-positioned to accelerate best practice adoption and improve rehabilitation outcomes. We at Praxis remain committed to supporting this national effort and shaping the future of recovery for Canadians with SCI.

The development of the ABT Community of Practice has been driven by strong member engagement, ensuring our priorities remain evidence-based and centred on delivering the greatest impact for people with spinal cord injury. This collaborative approach—bringing together stakeholders from across the care continuum—has proven so effective that other networks in Canada and the U.S. have asked us to share our insights to support their own growth.

**Kristen Walden**, Associate Director, Clinical Program in Best Practices and Implementation, Praxis Spinal Cord Institute

| ABT COP IMPACT METRICS |                     |
|------------------------|---------------------|
| 21                     | Publications        |
| 18                     | Abstracts & Posters |
| 25                     | Presentations       |
| 115                    | Members             |

# Translating Research into Impact

## THE LEADERSHIP OF DR. VANESSA NOONAN

In the evolving field of SCI research, few leaders embody impact and vision like Dr. Vanessa Noonan, Praxis Spinal Cord Institute's Director of Research & Best Practice Implementation. A physical therapist by training and a researcher by passion, Dr. Noonan has spent her career ensuring discoveries in SCI translate into real-world improvements in care.



**Dr. Vanessa Noonan**  
Director, Research & Best Practice Implementation, Praxis

Her journey began in spinal cord rehabilitation, where she embraced outcome measures to track patient progress. But early on, she noticed a disconnect.

“I was using outcome measures that didn’t always show change, yet I could see improvement happening,” she recalls. “That disconnect made me realize we needed better tools to measure what truly matters to people.”

That insight led her to pursue a master’s degree and then a PhD in Population and Public Health at the University of British Columbia, where her research focused on measuring participation and how people with SCI can return to meaningful activities.

Working with colleagues like Dr. Marcel Dvorak, Lise Bélanger, Dr. Charles Fisher, Dr. Brian Kwon and Dr. Janice Eng, she considers her time with the Vancouver Spine Program as transformative as it led to her playing a key role in establishing RHSCIR, which

would go on to report on national SCI care across the 30 acute and rehabilitation hospitals across Canada.

Today, Vanessa is a recognized leader in SCI research in Canada and globally. Most recently, Vanessa was mentioned in the bibliometric analysis of acute SCI research\*. The study, which analyzed data from 2020 to 2022, mapped global trends and emerging areas of focus, including highlighting a growing consensus on optimal surgical timing, and identifying priorities in drug therapies, surgical planning, and rehabilitation strategies. It also spotlighted the growing role of technologies like artificial intelligence, machine learning, and brain-computer interfaces to develop more effective, standardized care.

The analysis also showcased Praxis-supported researchers, including Dr. Noonan and Dr. Nader Fallah, as among the more frequently co-cited authors in the field, recognizing their contributions to SCI research.

Dr. Noonan’s commitment to research translation is further reflected in her leadership of the in data standardization, with her involvement on the International SCI Data Set Committee within International Spinal Cord Society (ISCoS), which has overseen the development of 27 data sets that are used internationally.

“Dr. Vanessa Noonan’s work exemplifies the power of thoughtful, evidence-informed leadership. Vanessa leads by example and elevates the contribution of the people around her.” says Bill Barrable, Praxis CEO. “She helps guide where research should go and ensures it reaches the people and systems that need it most.”

As SCI research expands, from surgical timing to AI-powered rehabilitation, Dr. Noonan’s blend of clinical expertise and scientific leadership will continue to transform SCI care in Canada and beyond.

\*Abdelwahab SI, Elhassan Taha MM, Farasani A, Jerah AA, Abdullah SM, Aljahdali IA, Oraibi B, Alfaifi HA, Alzahrani AH, Oraibi O, Babiker Y, Hassan W. Top 1000 Most Cited Papers in World Neurosurgery. World Neurosurg. 2024 Nov;191:e520-e530. doi: 10.1016/j.wneu.2024.08.161. Epub 2024 Sep 5. PMID: 39243969.



| PRAXIS IMPACT AT A GLANCE |                                                      |
|---------------------------|------------------------------------------------------|
| 100+                      | Active partners<br>(Canada & international)          |
| 410+                      | Publications in peer reviewed journals               |
| 160+                      | Projects supported to improve SCI<br>health outcomes |
| \$20M+                    | Grant funds distributed to catalyze<br>SCI research  |
| 1,500+                    | Clinicians trained to improve SCI care               |
| 75,000+                   | Users of ISNCSCI Algorithm from<br>164 countries     |

# Setting a New Standard

## THROUGH THE INTEGRATED PEOPLE CENTRED SPINAL CORD INJURY REHABILITATION PROGRAM

Health Standards Organization (HSO) standards are foundational to leading-edge accreditation programs and the development of evidence-informed public policy. They support healthcare systems globally in continuously improving the quality of care. Praxis has been working with Accreditation Canada and the Health Standards Organization with the unified goal of improving the standard of care for people living with SCI (PLEX). They support healthcare systems globally in continuously improving the quality of care.

**In 2013, two standards specific to SCI care were introduced:**

- **HSO S3401:2018 (E)** – Spinal Cord Injury Acute Services
- **HSO S3402:2018 (E)** – Spinal Cord Injury Rehabilitation Services

Despite their significance, feedback from the community highlighted the need for improvement in creating a seamless and cohesive care experience.

“Feedback from the SCI community on the previous SCI standards was that care was fragmented,” said Dr. Vanessa Noonan, Praxis Spinal Cord Institute’s Director of Research & Best Practice Implementation. “Praxis’s work is motivated by addressing the priorities of people living with SCI. Having a voice in the redevelopment of care standards was an exciting opportunity – it enabled us to lead and contribute to decision-making to improve lives.”

To address the persisting gaps in care, Praxis played a central role in re-evaluating these standards. Collaborating closely with key partners, the organization supported the consolidation of the two previous SCI standards into a single, integrated SCI standards. This new SCI standards incorporates holistic strategies and enhances the care pathway by providing a person-centred care approach, where rehabilitation is informed by an individual’s goals, starts immediately after the injury, and continues over the person’s lifetime.

A key feature in the creation of this new integrated standard was the thorough integration of PLEX of SCI throughout its development. The SCI standard was co-developed by clinical, research, health system and PLEX experts. Approximately one-third of the development team were PLEX, including both co-chairs of the Advisory Committee and one of the co-chairs of the Technical Committee. “Having PLEX play an active role in developing this standard helps to ensure it meets the needs of those it is intended to benefit, people who sustain an SCI,” said John Chernesky, Praxis PLEX Program Manager.

The outcome of this work is the **CAN/HSO S3402:2024 (E)** – Integrated People Centred Spinal Cord Injury Rehabilitation Program. This landmark SCI standard serves as a comprehensive guide for health system stakeholders, including PLEX and those involved in supporting people with SCI.

**The Integrated People Centred Spinal Cord Injury Rehabilitation Program ensures that care is:**

- Safe
- Reliable
- High-quality
- People-centred – tailored to individuals’ goals, needs, and preferences

**Key Features of the CAN/HSO S3402:2024 (E) Standard:**

- Integration Across the Continuum of Care
- Commitment to People-Centred Care
- Comprehensive Assessments
- Co-Design of Individualized Care Plans
- Support for a Skilled and Competent Workforce
- Promotion of Continuous Quality Improvement

The Praxis team is working to implement the new SCI standard at the hospitals that are part of the Praxis-led National Canadian SCI Registry (RHSCIR) network. As different provinces and healthcare centers adopt the standard, their experiences are being shared with this team, allowing them to be refined, leveraged, and shared, continuously strengthening SCI care.

“Some recommendations within the new SCI standard are being implemented within the SCI Program in Newfoundland” added Dr. Noonan. “We’re eager to learn from this rollout and apply those insights as new hospitals adopt the standard. We’ve created a circular network of sharing and learning because that’s how we improve and accelerate care. We improve together.”

Our work is motivated by addressing the priorities of people living with SCI. Having a voice in the redevelopment of care standards was an exciting opportunity – it enabled us to lead and contribute to decision-making to improve lives.

## IMPROVING ACUTE SCI CARE: GLOBAL GUIDELINES LAUNCHED

In 2024, Praxis partnered with AO Spine to launch new international clinical practice guidelines for acute spinal cord injury (SCI), published in the Global Spine Journal. These landmark guidelines are a major step forward in standardizing early SCI care worldwide. Focusing on three critical areas (timing of surgical decompression, blood pressure management, and intra-operative care), the guidelines offer evidence-based recommendations proven to impact recovery. A key recommendation is to perform surgical decompression within 24 hours of injury to support better neurological outcomes.

Praxis partnered with the AO Spine to support evidence review, ensure clinical relevance, and help convene a diverse global network of experts, clinicians, and people with lived SCI experience. The effort was co-led by internationally recognized spine surgeon-scientists including Dr. Michael Fehlings at Toronto Western Hospital, and Dr. Brian Kwon at Vancouver General Hospital.

Praxis continues to support guideline implementation by funding two recent grants. Dr. Fehlings' grant is to create educational videos, collaborate with the Canadian Spine Society and the American College of Surgeons to organize webinars and events to develop a care pathway to implement the early surgery guideline. The second grant to Dr. Kiran Pohar Manhas, Associate Adjunct Professor, University of Alberta, is to build consensus across diverse levels of trauma sites in Alberta to improve timing to surgery after acute traumatic spinal cord injury.

Together working with our grant partners, AO Spine and the Canadian Spine Society, on outreach, education, and training to bring this knowledge into real-world clinical practice. This milestone demonstrates our ongoing commitment of turning research into action to ensure individuals with SCI receive the right care at the right time.

# Celebrating 20 Years of Impact

## THE NATIONAL SPINAL CORD INJURY REGISTRY (RHSCIR)

In 2004, the Praxis-led Canadian National SCI Registry (RHSCIR) was launched at Vancouver General Hospital with a bold vision: to gather critical data from people living with spinal cord injury (SCI) to better understand recovery and improve long-term care. What began as a single-site initiative quickly evolved into a nationwide network of acute care hospitals and rehabilitation centres working together to advance SCI research and health outcomes.

Within just six years, RHSCIR had expanded to 30 acute and rehab facilities across Canada, establishing itself as a powerful national resource. This growing network enabled clinicians and researchers to gain deeper insights into SCI, track patient outcomes, and refine treatment approaches.

By 2014, RHSCIR began capturing more rehabilitation and long-term outcome data. In 2020, it expanded further to include individuals living with non-traumatic SCI, broadening the scope of the registry and deepening our understanding of the full spectrum of spinal cord injuries.

Now in its 20th year, RHSCIR has become a cornerstone of SCI research and care in Canada, demonstrating the power of community, collaboration, and shared data. It continues to evolve, supporting innovation and improving lives across the country.



### RHSCIR METRICS AT A GLANCE

1450

Annual enrolments

14,650+

Total participants

30

Participating facilities

8,970+

Canadians with SCI benefiting from implemented best practice



# Innovation at Praxis

## CONTINUING TO BUILD BENEFITS TOGETHER

The Praxis Innovation team is dedicated to advancing medical technologies that meaningfully improve the lives of people living with SCI. Through a suite of programs - Praxis SCI Incubate for early-stage prototypes, Praxis SCI Accelerate for market-ready innovations, and SCI Adopt for early product implementation - we support ventures at pivotal stages in the innovation lifecycle.

These programs are more than support mechanisms, they are key to turning bold ideas into real-world impact for the SCI community.

At the core of Praxis Innovation is the strength of our network and a deep belief in the value of collaboration. By uniting people with SCI, clinicians, and commercialization experts, we deliver three distinct value-adds that demonstrate how shared expertise accelerates progress.



|       |                                           |    |                                                                               |
|-------|-------------------------------------------|----|-------------------------------------------------------------------------------|
| 3,000 | Hours of one-on-one Mentorship            | 40 | Ventures Supported                                                            |
| 450   | Individuals with Lived Experience Engaged | 15 | Products Launched<br>(with regulatory approvals secured in Canada & the U.S.) |

At Praxis, the priorities of people living with SCI are our priorities. We support and enable projects that address meaningful needs. To do this, we draw on the strength of our networks, integrating the perspectives, knowledge, and passion of individuals dedicated to this field. It's through these shared efforts that we're able to drive tangible progress. ”

### Andrew Forshner

Associate Director, Fundraising & Partnerships in Innovation, Praxis

### User Validation Rooted in Real-World Experience

Every innovation we support is grounded in validation from two critical voices: people living with SCI and the clinicians who care for them. Praxis convenes customized focus groups drawn from our extensive SCI network to ensure that each project is solving a real and relevant need. These sessions shape a tailored innovation roadmap, defining milestones and outlining the steps needed to achieve specific and identified goals.

### Ongoing Mentorship Through Deep Expertise

Praxis Innovation programs integrate continuous mentorship from SCI experts across clinical, lived experience, and commercial domains. Providing one-on-one engagement opportunities with key stakeholders and creating consistent mentorship opportunities, helps to transform the business roadmap into action.

### Tripod Coaching Model for Targeted Support

Our unique tripod coaching approach pairs each of the start-ups that we work with, with a dedicated team: a clinician, a person with lived experience, and a commercialization expert. This team meets weekly with founders and leadership to support agile decision-making, validate strategy, and deliver real-world insight that translates into better products and improved outcomes for people in the SCI community.

As our programs expand and projects progress, the strength of the Praxis network continues to shine, driven by our team's commitment to connection, impact, and better outcomes for the SCI community.

# Innovation Spotlight

## BOWHEAD REDEFINES MOBILITY WITH THE ERA WHEELCHAIR

In 2024, Calgary-based Bowhead Design Corporation joined the Praxis SCI Accelerate program to advance a promising innovation already in development: a next-generation manual wheelchair designed for lifelong use. Already recognized as the maker of the world's leading adaptive off-road bikes, Bowhead was focused on developing a “fit-for-life” wheelchair, one that could adapt with users through every stage of their journey.

This vision was led by Bowhead founder Christian Bagg, a T8 paraplegic and long-time wheelchair user. Driven by his personal experiences, Bagg and his team set out to create a next-generation chair that would deliver performance, comfort, and long-term adaptability.

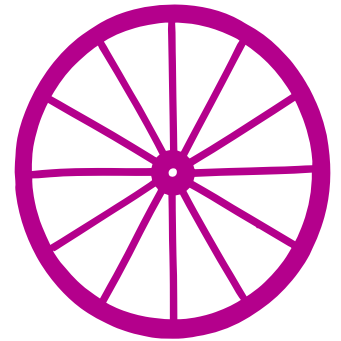
Through Praxis' SCI Accelerate program, Bowhead tapped into critical networks to inform and validate its R&D, leveraging input from users, clinicians, and experts. The Praxis Innovation team provided guidance on market positioning, health system coverage pathways, and the broader landscape for wheelchair innovation.

This collaboration helped shape The Era, a groundbreaking carbon fibre manual wheelchair, which launched in early 2025.

### Designed to evolve with its user, The Era features:

- Removable and swappable seating components
- Extremely low transfer weight
- A high-strength, vibration-dampening carbon chassis
- Torsion bar suspension for smoother mobility

**The Bowhead Era™** encompasses both innovation and versatility. True to its name, it is a wheelchair that can support users through many “eras” of their lives, from changing health needs to evolving mobility goals. By combining cutting-edge design with real-world insights from people living with SCI, Bowhead, through its new product and support from the SCI Accelerate program, is helping to redefine what personal mobility can look like.



# Giving a Guiding Hand

## TECHNOLOGY THAT RESTORES ABILITY

When the team at IRegained first created the MyHand® System, their goal was clear: help people regain lost hand function after a stroke or traumatic brain injury. The digital therapy platform uses targeted, personalized exercises and interactive games to support hand recovery through neuroplasticity, which is the brain's inherent ability to reprogram its neural pathways and relearn.

The innovation showed early promise, and its potential expanded significantly after a meeting with Praxis, where the IRegained team was introduced to how the MyHand® System could benefit the SCI community. Recognizing this untapped opportunity, Praxis supported IRegained through its inaugural SCI Adopt program following a thorough evaluation process and began working closely with the team to adapt the system for people living with SCI. More than just a funding partner, Praxis offered access to a community of clinicians, people with lived experience, and neurorehabilitation specialists who helped shape the product's evolution in real-time.

“We originally focused on stroke because that’s where the main target population, funding and research were,” says Samir Sahoo, Chief Operating Officer, IRegained. “Praxis expanded our vision. They helped us see a real, unmet need in the SCI community, and they gave us the tools and connections to do something about it.”

Praxis expanded our vision. They helped us see a real, unmet need in the SCI community, and they gave us the tools and connections to do something about it.



One of the most important early insights came from user experience. The team had built the system for one-hand impairment, as this is common for people who have had a stroke. After meeting SCI users with bilateral hand impairments, the IRegained team quickly learned that their technology needed to adapt to have a greater impact. “It seems so simple now,” adds Eric Dumais, Deputy Director, Clinical Operations, IRegained. “Designing for both hands changed everything. The feedback from Praxis made the system more accessible, inclusive, and ultimately more effective.”

As part of the program, Praxis funded the deployment of MyHand® at Walk-It-Off Neuro-Recovery and Wellness Centre, a rehabilitation clinic in Newmarket, Ontario. Over a three-month pilot, five individuals living with SCI used the MyHand® System, and the results were both encouraging and moving. Patients reported increased grip strength and functional improvements. Even more powerfully, they described regaining a sense of independence in their daily lives.

“We are very thankful to Praxis for generously funding a MyHand® System for Walk It Off. Clinicians enjoy it and

find it intuitive to use with patients, while patients who use it find it fun and engaging.” – K., RKin at Walk-It-Off.

“We previously met someone with a C4-C5 injury who had very limited hand function,” Dumais adds. “Seeing even small gains in their ability to interact with the world, it was emotional. That’s when we knew we were on the right path.”

Working with Praxis’ Dr. Vanessa Noonan and the persons with lived experience team, IRegained identified a cost-effective and meaningful way to measure outcomes. Grip strength, user feedback, and simple questionnaires replaced more expensive and time-consuming clinical assessments, ensuring valuable insights were compiled without overwhelming clinics.

Praxis also played a key role in supporting a health economics analysis, providing data on quality-adjusted life years, standards of care, and policy trends. With this foundation, IRegained built a compelling case: their device could offer equal or better clinical outcomes than current approaches, at a lower long-term cost. Early data suggests potential savings of around

\$160 per patient per year, along with reduced burden on clinicians, and even potentially reduced reliance on caregivers.

“There’s a clear benefit to using our technology,” Sahoo says. “The question is, if not MyHand®, then what? Clinics are often left with tools that don’t make a meaningful difference. MyHand® offers the potential for real gains in function and overall quality of life.”

Looking ahead, IRegained’s goal is to expand access and adoption, it is currently available at three locations in Canada and four in the US. “Everyone who uses the device wants to keep using it. It’s our mission to bring this technology to more people, more clinics, and more communities,” says Sahoo.

Both Sahoo and Dumais credit Praxis for the critical role it has played in IRegained’s journey. “No other organization does what Praxis does, connecting companies like ours with the networks and people we want our product to impact. Without the support of Praxis, MyHand® wouldn’t be where it is today. And neither would we,” says Dumais.



# Cool Updates

## SCI CLIMATE FUTURES

In response to the heatwave crisis in British Columbia, Praxis launched the SCI Climate Futures project in 2023. This pioneering initiative addresses the acute vulnerability of individuals with disabilities, such as SCI and multiple sclerosis (MS), that impair the body's thermoregulatory systems, placing them at serious risk during periods of extreme heat.

Praxis, together with its partner, Technology for Living (TFL), are thrilled to be a recipient of Gore Mutual Insurance's Collaborative Climate and Equity Partnerships grant. With this generous support, Praxis and TFL are launching Phase Two of the SCI Climate Futures Initiative which seeks to understand and mitigate the impact of heatwaves on the disability population in the Lower Mainland. Together, Praxis and TFL will pilot and evaluate the health impact of accessible clean-tech cooling innovations in residential housing for people whose physical disabilities make them vulnerable to overheating.

In 2024, Praxis kicked Phase Two off with a competitive pitch event, where selected innovators were awarded funding and mentorship to test portable and built-environment cooling technologies. Pilot projects are now underway in the Lower Mainland, offering a glimpse into how inclusive, climate-resilient housing and technologies could transform daily life for people with disabilities.

This builds on the momentum and insights gained in Phase One of the SCI Climate Futures initiative, where 140 free wearable cooling vests were provided to 140 individuals living with SCI and MS. These vests offer a critical line of defense against the dangerous effects of extreme heat, significantly enhancing comfort, safety, and quality of life.

For Paul Tubbe, who sustained a T5-7 AIS C spinal cord injury in 1983, the impact was life-changing. "Regulating my body temperature in the summer is much easier now," he explains. "The cooling vest has allowed me to normalize the experience of summer."



Regulating my body temperature in the summer is much easier now, the cooling vest has allowed me to normalize the experience of summer.

Additional feedback from participants was overwhelmingly positive, underscoring a need to recognize personal cooling devices as essential tools, on par with gait aids or wheelchairs. Many recipients of the vests noted significant improvements to their health, and well-being, particularly in the summer. Since then, Praxis has worked, in partnership with BC Hydro and with funding from the City of Vancouver, to develop a distribution plan for the remaining 100 vests. In parallel, the team continues to share findings with the City of Vancouver's Disaster Risk and Resilience team and Vancouver Coastal Health, reinforcing the value of cooling interventions as part of climate adaptation and health equity strategies.

One key insight from Phase One is that a lack of clinical data on the health impacts of portable cooling devices is a barrier to broader adoption and policy inclusion. Praxis, along with partners, are now advocating for further investment in research and innovation adoption to enhance the climate resiliency for people living with disabilities.

"The warming effects of climate change pose a real threat to those with a disability," says Tubbe. "Investments in cooling tech will go a long way in positively impacting our quality of life."

The warming effects of climate change pose a real threat to people with a disability. Investments in cooling tech will go a long way in positively impacting our quality of life.



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\*Shim's Ride is an annual fundraiser for Praxis coordinated by Cole Glover, Sam Horn, Nick Monette, and Mathew Szymanowski.

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|                                                                                                        |                                                        |                                                                     |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------|
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| Accreditation Canada                                                                                   | Horizon Health Network                                 | Governors of the University of Toronto                              |
| Alberta Health Authority                                                                               | Interior Health Authority                              | University of British Columbia                                      |
| Alberta Trauma Services                                                                                | International Collaboration<br>on Repair Discoveries   | University of British Columbia Okanagan                             |
| BC Hydro                                                                                               | International Spinal Cord Biobank                      | University of Manitoba                                              |
| Bowhead Design Corporation                                                                             | iRegained Inc.                                         | Western University of Ontario                                       |
| Canadian Spine Outcomes<br>and Research Network                                                        | La Corporation de L'Ecole Polytechnique<br>de Montréal | Unity Health Toronto                                                |
| Canadian Spine Research Organization                                                                   | Lawson Health Research Institute                       | Université de Montréal                                              |
| Centre for Clinical Epidemiology<br>& Evaluation                                                       | McMaster University                                    | Université de Sherbrooke                                            |
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| Centre Intégré Universitaire de Santé et<br>de Services Sociaux du Nord-de-L'Île-de-<br>Montréal       | Okanagan College                                       | University of Waterloo                                              |
| CHU de Québec – Université Laval                                                                       | Ontario Brain Institute                                | Vancouver Coastal Health Authority                                  |
| First Steps Wellness Centre                                                                            | Ottawa Hospital Research Institute                     | Vancouver Coastal Health Research<br>Institute                      |
| FMRK Diagnostics Technologies Inc.                                                                     | Rehabtronics Inc.                                      | Vancouver Island Health Authority                                   |
| Glenrose Rehabilitation Hospital                                                                       | Smartarm Robotics Inc.                                 | Waakebiness-Bryce Institute for<br>Indigenous Health                |
| Foundation                                                                                             | Spinal Cord Injury Alberta                             |                                                                     |
| Governors of the University of Calgary                                                                 | Spinal Cord Injury BC                                  |                                                                     |
| Hamilton Health Sciences Corporation                                                                   | Spinal Cord Injury Ontario                             |                                                                     |
|                                                                                                        | Spinal Cord PEI                                        |                                                                     |
|                                                                                                        | Sunnybrook Research Institute                          |                                                                     |
|                                                                                                        | Technology for Living                                  |                                                                     |

## PRAXIS NETWORK

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University of Alberta Hospital  
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Hamilton Regional Rehabilitation Centre

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Ottawa Hospital Rehabilitation Centre

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Saint John Regional Hospital

**New Brunswick (Fredericton)**  
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Our work would not be possible without the significant contribution of individuals living with spinal cord injury. The projects highlighted in this year's annual report are made possible through the generous support of our funders.



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Natalus Life Sciences Capital Ltd.

### Sean Gjos

Entrepreneur, Company Builder, Advisor

### Jeremy Abitbol

Vice-President, Business Development  
Northleaf Capital Partners

### Dr. Harinder (Hari) Dhaliwal

EGG & EMG Lab Director, Neurologist  
& Clinical Assistant Professor Fraser Health  
Authority, Surrey Memorial Hospital

### Peter Guo

Partner, BC Enterprise Risk Services, MNP

### Clay Horner

Retired Chairman at  
Woodbine Entertainment  
Retired Chair at Osler,  
Hoskin & Harcourt LLP

## Audit & Finance Committee

### Harbir Toor (Chair)

Chief Financial Officer, Eyam

### Sean Gjos

Entrepreneur, Company Builder, Advisor

### Jeremy Abitbol

Vice-President, Business Development  
Northleaf Capital Partners

| YEAR ENDED MARCH 31, 2025, WITH COMPARATIVE INFORMATION FOR 2024 | 2025         | 2024         |
|------------------------------------------------------------------|--------------|--------------|
| Cash provided by (used in):                                      |              |              |
| Operations:                                                      |              |              |
| Excess of revenue over expenses                                  | \$ 857,269   | \$ 814,467   |
| Items not involving cash: Depreciation of capital assets         | 20,819       | 46,789       |
|                                                                  | 878,088      | 861,256      |
| Changes in non-cash working capital:                             |              |              |
| Accounts receivable                                              | 12,786       | 10,020,915   |
| Prepaid expenses                                                 | (15,596)     | (14,605)     |
| Accounts payable and accrued liabilities                         | (226,683)    | (133,870)    |
| Deferred contributions                                           | (3,662,537)  | (3,179,008)  |
|                                                                  | (3,013,942)  | 7,554,688    |
| Financing:                                                       |              |              |
| Issuing a loan receivable                                        | (100,000)    | -            |
| Proceeds from loan receivable                                    | 15,000       | -            |
|                                                                  | (85,000)     | -            |
| Investing:                                                       |              |              |
| Purchase of capital assets                                       | -            | (33,750)     |
| Purchase of short-term investments and investment funds          | (256,908)    | (14,200,000) |
| Purchase of long-term investments                                | (126,279)    | -            |
| Proceeds from short-term investments                             | 9,349,888    | 5,053,981    |
|                                                                  | 8,966,701    | (9,179,769)  |
| Increase in cash and cash equivalents                            | 5,867,759    | (1,625,081)  |
| Cash and cash equivalents (bank indebtedness), beginning of year | 1,069,566    | 2,694,647    |
| Cash and cash equivalents, end of year                           | \$ 6,937,325 | \$ 1,069,566 |

| YEAR ENDED MARCH 31, 2025, WITH COMPARATIVE INFORMATION FOR 2024 | 2025         | 2024          |
|------------------------------------------------------------------|--------------|---------------|
| Revenue:                                                         |              |               |
| Grants and contributions                                         | \$ 8,707,037 | \$ 10,231,213 |
| Donations and sponsorships                                       | 144,246      | 66,029        |
| Investment income                                                | 493,089      | 633,243       |
| Other income                                                     | 416,725      | 156,399       |
|                                                                  | 9,761,100    | 11,086,884    |
| Expenses:                                                        |              |               |
| Translational research                                           | 2,356,081    | 2,807,169     |
| Best practice implementation                                     | 2,600,716    | 2,958,532     |
| Innovation                                                       | 1,152,896    | 1,525,000     |
| Informatics                                                      | 1,402,316    | 1,491,947     |
| Persons of lived experience                                      | 824,162      | 906,604       |
| Fundraising                                                      | 253,379      | 96,643        |
| Management and administration                                    | 314,281      | 486,522       |
|                                                                  | 8,903,831    | 10,272,417    |
| Excess of revenue over expenses                                  | 857,269      | 814,467       |
| Unrestricted fund balance, beginning of year                     | 2,485,260    | 1,670,793     |
| Unrestricted fund balance, end of year                           | \$ 3,342,529 | \$ 2,485,260  |

For Praxis Spinal Cord Institute's complete audited financial statements, please visit our website: [praxisinstitute.org](https://praxisinstitute.org)

# In Memory of Dr. Marcel Dvorak

(1959–2025)

Praxis honours the life and legacy of Dr. Marcel Dvorak - world-renowned spine surgeon, visionary researcher, and transformational leader in spinal cord injury (SCI) care.

We remember Dr. Dvorak with deep respect and gratitude for the pivotal role he played as our first Scientific Director. His leadership, insight, and collaborative spirit were instrumental in shaping the foundation and direction of Praxis. His influence continues to resonate across our work and within the global SCI community.

One of Dr. Dvorak's most enduring contributions was the development of the Praxis-led Canadian Spinal Cord Injury Registry (RHSCIR), now known as RHSCIR. He was a co-creator of the original registry, recognizing early on that high-quality standardized data was needed on the patient's journey to advance evidence-based care and rehabilitation. When he joined Praxis,

he helped to expand and scale RHSCIR into one of the world's largest and most accessible SCI data platforms. Today, thanks to his vision, RHSCIR includes information from over 14,000 individuals and supports clinical trials, best practice implementation, and quality improvement initiatives. It has also served as a model for international efforts, including New Zealand's national SCI registry.

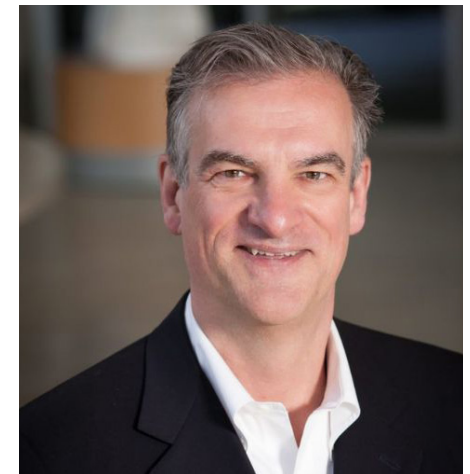
Beyond Praxis, Dr. Dvorak held numerous leadership roles that reflected his standing in the field. He was a full-time Professor of Orthopaedics at the University of British Columbia and held the Cordula & Günter Paetzold Chair of Clinical Spinal Cord Injury Research. From 2004 to 2014, he served as Head of the Division of Spine, Department of Orthopaedics at Vancouver General Hospital and Medical Director of the Combined Neurosurgical and Orthopaedic Spine Program.

His clinical practice focused on adult spine surgery, particularly major deformities, traumatic spine injuries, and SCI.

Dr. Dvorak authored more than 190 peer-reviewed publications, delivered over 300 scientific presentations worldwide, and mentored more than 56 graduate students and spine fellows. He was an active member of leading professional societies, including the Cervical Spine Research Society, Scoliosis Research Society, North American Spine Society, Canadian Spine Society, and the AO Spine International Knowledge Forum on Spine Trauma and SCI. He also served as an Executive of the Association for Collaborative Spine Research.

Dr. Dvorak's legacy is one of bold vision, scientific excellence, and a deep commitment to collaboration.

We are profoundly grateful for his contributions to Praxis and the broader SCI community, and we remain committed to building on the foundation he helped create.



**Dr. Marcel Dvorak**



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**[praxisinstitute.org](http://praxisinstitute.org)**



The Praxis Spinal Cord Institute  
is proudly accredited by  
Imagine Canada.