Request for Applications (RFA)

Translate Research into Neurorestorative Treatments

About Praxis

Praxis Spinal Cord Institute 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 SCI. Our strategic objectives include supporting work that leads to promising neurorestorative treatments and evidence-based care that are identified as priorities by Canadians living with SCI.

The term "neurorestorative treatments" is used broadly by Praxis to include early acute management to protect the spinal cord (e.g. pharmacologic therapies, surgical management) and/or facilitate repair at any time following injury (e.g. neuromodulation, rehabilitation training such as activity-based therapy [ABT]), with the goal to restore an individual's function after SCI (e.g. walking, grasping and reaching, blood pressure, respiratory function, bowel, bladder and/or sexual function etc.) and reduce the impact of secondary complications (e.g. pressure injuries).

Background

Praxis has funded separate projects examining biomarkers (e.g. cerebrospinal fluid and serum, imaging) and neurorestorative treatments (e.g. spinal stimulation pilots, functional electrical stimulation pilots, ABT) at acute and rehabilitation SCI hospitals that are part of the National Canadian SCI Registry (RHSCIR) with the goal to improve assessment of impairment, advance development of promising treatment for SCI, and maximize function for people living with SCI.

However, given the low incidence and heterogeneity of SCI, more robust studies integrated with precision health approaches, artificial intelligence (AI), or other innovative technologies are needed to advance existing and emerging neurorestorative treatments. Integration with these new technologies will enable the development and testing of novel restorative therapies and algorithms for SCI to better define which patient population would be the best candidates for (and most likely to benefit from) specific treatments.

Description of the RFA

The objective of this RFA is to fund a team planning grant to catalyze and translate clinical research on neurorestorative treatments harnessing the potential of precision health approaches, AI, or other innovative technologies. The goal of the RFA is to increase access to neurorestorative treatments to improve function (neurological, physical, emotional), reduce secondary complications, and increase quality of life for individuals living with SCI.

Output/deliverable of this RFA:

- An application with a competitive proposal for a major external funding agency (e.g. Canadian Institutes of Health Research, U.S. Department of Defense, Craig H. Neilsen Foundation).

Funded grants will have a term ending no later than March 31, 2026 and with a maximum amount of $50,000 CAD each. At least two grants are expected to be awarded with the following requirements and subject to peer-review.

- Conducting a pilot study directly relevant to the preparation and writing of a competitive proposal and/or executing a strategy to engage other national and international SCI collaborators on developing a competitive proposal for submission to an external funding agency.

- Including one (e.g. neuromodulation) or a combination of neurorestorative treatments (e.g. nerve transfer and rehabilitation training).

- Integrating use of precision health approaches, AI, or other innovative technologies.

- Utilizing evidence-based measures and SCI data sets is encouraged, such as:
  - biomarkers, ranging from molecular biomarkers found in body fluids/tissues (e.g. neurochemical) to motion-based biomarkers (e.g. quantified activity) in body systems impacted by SCI;

  - nationally implemented outcome measures including the Standing and Walking Assessment Tool (SWAT), Spinal Cord Independence Measure (SCIM), and the International Standards for Neurological Classification of SCI (ISNCSCI or "ASIA exam");

  - SCI data sets such as the International SCI Data Sets and the NIH National Institute of Neurological Disorders and Stroke (NINDS) SCI Common Data Elements.

- It is highly encouraged to engage partners in multiple provinces/territories and internationally, as well as engage individuals/partners from equity-deserving groups.

- The team must include: researchers, clinicians, and persons with lived experience (PLEX) (may also include SCI community organizations, industry, or other partners as appropriate).

- Applicants are strongly recommended to identify matched funding from other sources or in-kind resources.

- Applicants are encouraged to utilize and leverage international and national SCI resources, either for the proposed work in this Praxis RFA and/or for the proposal to be submitted to an external funding agency. Examples of resources include:
  - Integrated Knowledge Translation (IKT) Guiding Principles to support meaningful engagement of partners throughout the project

  - North American SCI Consortium (NASCIC) to request input or involvement from PLEX

  - International SCI Biobank (ISCIB)

  - ISNCSCI Algorithm to score the ISNCSCI or "ASIA exam"

  - Clinical data collected on participants with SCI (e.g. National Canadian SCI Registry [RHSCIR])

  - Data platforms (e.g. Praxis Connect data capture platform, the National Imaging Repository) to store data. Email rhscir@praxisinstitute.org for more information

  - Open Data Commons for Spinal Cord Injury (ODC-SCI) to share and publish data

  Note: If leveraging Praxis' resources for the current Praxis RFA, it is recommended to contact Praxis (funding@praxisinstitute.org) as soon as possible to learn more and a minimum of 4 weeks prior to the RFA closing date to confirm resources and include confirmation as part of your application.

Eligibility Criteria

The Principal Applicant must:

- Be affiliated or be partnered with an institution within Canada, eligible to receive Praxis funds (see "Host Institution" below);
- Have an academic, clinical, or research appointment which allows the applicant to pursue independent projects, including the proposed project;
- Engage in independent research activities for the entire duration of the funding;
- All previous Praxis grant reporting (narrative and financial) are complete with no details outstanding;
- Accept Praxis' conditions of award; and
- Disclose all real or perceived conflicts of interest.

The Host Institution must:

- Be a qualified donee registered with Canada Revenue Agency; and
- Not be a private, for-profit organization.

All Project Team Members must have the support of their organization to participate in the project.

Award Eligible Expenses

Awards can only be used to support direct project expenses. Praxis has an Administrative Cost Policy which outlines that **no indirect costs** can be covered with Praxis funding. Ineligible expenses include:

- Rent
- Capital expenses (e.g. computers, office equipment, furniture, fixtures, etc.)
- Indirect expenses (overhead, administrative costs)
- Activities that are not part of the project
- Costs that are already otherwise funded

Key Dates

Key Dates	Target Date
RFA Opens	September 23, 2024
Deadline to Apply	November 24, 2024
Review Process	November - December 2024
Notice of Decision	December 2024
Awarded Grants to be Funded	January 2025

Application Instructions

Using the application form, your application must include the following:

1. Application cover

2. Project lay summary (100 words max)

3. Project team composition (members and partners)

4. Proposal (4-pages max)

   a. **Background**: Describe the clinical, scientific, and/or technical significance of the issue to be addressed in this project, and how the issue is a unique and clearly defined need. Discuss the innovation and originality of the project compared to previous studies. Also discuss how the intended impact of the project aligns with Praxis' strategic objectives, vision and mission.

   b. **Objectives**: Describe the objectives of the project and considerations for sustainability and scalability of the project.

   c. **Activities and Knowledge Translation (KT)**: Outline the proposed activities and KT plans and explain how they will be executed.

   d. **Expected Outcomes**: Outline the expected outcomes and how they will be evaluated.

   e. **Operational Readiness**: Justify the team's qualification and time availability to deliver on the proposed activities and KT plans within the allotted timeframe. Please identify if you foresee exploring the utilization of SCI resources (mentioned above) for the project and provide specifics.

   f. **Partner Engagement**: Describe how PLEX and other partners (such as health care providers, researchers, community organizations, Indigenous communities, health authorities, innovators, and policy-makers) are integrated into the project. Examples of integration include research design, committee membership, partnership, project participation, dissemination.

   g. **Equity, Diversity and Inclusion (EDI) and Indigenous Engagement**: Outline the EDI considerations to be integrated into the project team composition and the project itself. Also identify if there are any Indigenous engagement elements related to the project and if so, provide an overview of the approach and considerations.

5. Table of milestones, deliverables, targets and timelines (no page limit)

6. Budget

   a. Include expenses for the activities and provide justification. If applicable, list other funding sources or in-kind resources for this project.

7. Supporting documents for the Principal Applicant(s) (no page limit)

   a. **Conflict of Interest Disclosure:** Review the policy and complete the disclosure form.

   b. **CV:** You can submit your Tri-Agency CV or another format.

Formatting and Submission

Please format your application as follows:

- **Font**: Calibri 11-point
- **Spacing**: Single line

Compile your application into a single PDF and submit it to funding@praxisinstitute.org by the deadline. You will receive an acknowledgement of your application within 2 days of submission.

Review Process

For evaluation purposes, a committee will evaluate the application using the criteria below.

1. **Strategic Alignment and Potential Impact:** Does the project align with Praxis' strategic objectives, vision and mission? Does this project address a clearly defined need? Will the project's deliverables be meaningful and of value to the SCI community?

2. **Merit, Feasibility and Evaluation Plan:** Is there evidence of excellence and scientific merit of the project? Are the project's objectives, activities, KT plans realistic given the scope, schedule, and identified resources? Are people-centred care principles integrated in the methodology? Are the outcomes realistic? Is the plan for measuring outcomes appropriate?

3. **Operational Readiness:** Is the team appropriately trained and capable of executing the project? Is the team prepared and has adequate resources (e.g. appropriate budget, equipment, process/system) to initiate the project right away? Is there matched funding or in-kind resources for the project? Have EDI and Indigenous engagement been considered for the team and throughout the project?

4. **Engagement and Sharing of Knowledge:** Is the integration of partners into the project relevant and sufficient? How likely is the KT plan lead to increased awareness and impact?

Evaluation Criteria

Applications will be assessed against the criteria and weightings below, and ranked based on the rating scale.

Weighting

Criterion	Weighting
Strategic Alignment & Potential Impact	15%
Merit, Feasibility & Evaluation Plan	35%
Operational Readiness	40%
Engagement and Sharing of Knowledge	10%

Rating Scale

Threshold	Range	Outcome
Outstanding	4.5 – 4.9	Recommended for funding
Excellent	4.0 – 4.4	
Very Good	3.5 – 3.9	May be funded
Fair	3.0 – 3.4	Not recommended for funding
Not adequate	1.0 – 2.9	

Funding Decision

Upon completion of the review process, the committee will present a recommendation to the Chief Executive Officer for the final funding decision.

Contact Information

Please contact funding@praxisinstitute.org for questions regarding this application for funding.