

Awards Guide

October 2024

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Introduction

The Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc. (Fedoruk Centre) was established in 2011 as a not-for-profit corporation, with an independent Board of Directors (the Board), a single Member, the University of Saskatchewan, and baseline funding from the province through an Agreement with Innovation Saskatchewan. Our founding stakeholders set out to stimulate new research, development, training and open discourse so that citizens of Saskatchewan could participate in the application of nuclear science and technology to target impact areas. To date, the Fedoruk Centre has awarded more than \$7.8M in grants supporting 50 research Projects that have enabled Saskatchewan scientists to contribute broadly to subjects in the nuclear domain.

For 2024, the Fedoruk Centre is issuing a Call for Proposals of Projects that align with the Fedoruk Centre's purpose and target impact areas. Priority consideration will be given to proposals linked to workforce development for the deployment of nuclear technologies in Saskatchewan for energy, health and advanced materials. The total Budget for the Call is up to \$400K for cash contributions from the Fedoruk Centre, applied towards Project costs plus institutional overheads, for 4 to 8 Projects.

PURPOSE OF THE FEDORUK CENTRE

The Fedoruk Centre was established to help place Saskatchewan among global leaders in nuclear research, development and training through investment in partnerships with academia and industry, for maximum societal and economic benefit.

TARGET IMPACT AREAS

The Fedoruk Centre's key stakeholders and the Board are especially interested to see our investments deliver impacts in three areas:

- 1. Understanding the practical and social aspects of nuclear energy, to inform decision-making towards a clean, sustainable future;
- 2. Nuclear imaging tools and methods to advance life sciences, agri-biotechnologies and medicine; and
- 3. Material sciences, through neutron-beam and other nuclear methods, to improve energy, health and transportation.

IMPORTANCE OF PARTNER CONTRIBUTIONS

To be considered for ranking, proposals must identify one or more partners whose contributions to the Project (cash or in-kind) will add value to the contribution requested from the Fedoruk Centre.

Partners are associated with the Project and the Project Leader, as opposed to being partners of the Fedoruk Centre. Partners can be organizations from any knowledge sector (e.g. industry, government agencies, regulatory boards or research institutions) within Saskatchewan, elsewhere in Canada or abroad. Industry partners can include any private-sector, for-profit company, preferably linked to the nuclear sector, for example, uranium mining, fuel processing, special-alloy component manufacturing, radiation detectors, instrumentation and control, safety engineering, computer modelling, design, training services, suppliers of nuclear medical equipment or radiopharmaceuticals, etc. Partner funding sources can also be provincial or federal agencies (e.g. NSERC, SSHRC, CIHR, CFI, Mitacs¹), research organizations (e.g. post-secondary institutions, NRC, SRC, ARC, Saskatchewan Cancer Agency, Canadian Light Source, Canadian Nuclear Laboratories), philanthropic foundations, or regulatory bodies (e.g. Canadian Nuclear Safety Commission, Health Canada, Environment Canada). The objective is to maximize the impact of a Fedoruk Centre investment by leveraging contributions from sources beyond Innovation Saskatchewan.

COMMITMENT TO SUPPORT CONVERSATIONS ABOUT NUCLEAR SCIENCE AND TECHNOLOGY

Funded Project Leaders are expected to participate in *nuclear*FACTS – an annual meeting with the Project Advisory Committee, other Project Leaders, and any other interested participants from academia, industry, government or the public. Project Leaders provide updates on the status of their research and progress towards target outcomes, for feedback and discussion of challenges, successes, and opportunities for economic and societal benefit to the people of Saskatchewan.

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¹ Applicants working with Canadian or international businesses or eligible Canadian not-for-profit organizations may be eligible for co-funding through a Mitacs program. See https://www.mitacs.ca/en/saskatchewan

Project Leaders are also expected to help the Fedoruk Centre communicate their work with people in the broader Saskatchewan community, for example: why their Project is important; what they are learning; and how their insights could improve quality of life, safety or security, whether locally, nationally or globally. Communication opportunities arise from time to time and could include web-site articles, media interviews and public meetings, for example.

Eligible Lead Institutions

The University of Saskatchewan, the University of Regina, Saskatchewan Polytechnic, the Saskatchewan Research Council and the Canadian Light Source are currently recognized as meeting the criteria for eligibility as Lead Institutions:

- Must be Saskatchewan based;
- Must be publicly funded and required to submit audited financial statements to their funder;
- Must have a research mandate; and
- Must have a training mandate leading to a provincially recognized designation, or provide access to facilities and/or resources to augment the training of persons who are registered in a program of study leading to a provincially recognized designation.

The following are ineligible as Lead Institutions:

- For-profit organizations and agencies or subsidiaries of for-profit entities;
- Federal departments, departmental corporations, Crown corporations or wholly-owned subsidiaries of Crown corporations;
- Not-for-profit corporations that have been established by either of the above.

Eligible Project Leaders and Co-Applicants

Applications must demonstrate that the Project Leader currently holds:

- A tenured, or tenure-track position at the University of Regina or the University of Saskatchewan; or
- A permanent position at an eligible institution; or
- A term or contract position at an eligible institution, which extends at least to the end of the proposed research Project term.

The Project Leader must be permitted to engage in self-directed research and to supervise or co-supervise the research of postdoctoral fellows or students registered in a program towards a provincially recognized designation.

A maximum of five co-applicants may be included if needed to ensure that sufficient expertise is available for the Project. Co-applicants can be from any sector (e.g. government, academia, Partner organization) within or outside Saskatchewan and must be qualified to undertake research independent of direction by others.

Eligible Project Costs

ELIGIBLE DIRECT RESEARCH COSTS

- Portion of salaries and nondiscretionary benefits (federal, provincial, institutional) for postdoctoral fellows and graduate students attributed to the Project;
- Portion of salaries and nondiscretionary benefits (federal, provincial, institutional) for technicians and professional research personnel (i.e. persons who conduct research under the direction of another individual) attributed to the Project;
- Portion of salaries and nondiscretionary benefits (federal, provincial, institutional) for other trainees (e.g. student research assistants) attributed to the Project;
- Fees for access to research facilities, *including the Saskatchewan Cyclotron Facility*, at documented rates that are applicable to the Project;
- Materials and supplies essential to the Project and not normally provided by the Institution, which could include radiopharmaceuticals or radiochemicals produced by the Saskatchewan Cyclotron Facility;
- Equipment of value less than \$25,000 per item;
- Travel and engagement costs for field work, collaborative work, or consultations;
- Dissemination of research results (publication costs, scientific conferences, or public presentations);
- Required services and technical contracts; and
- Specialized training courses required by the Project.

INDIRECT COSTS OF RESEARCH

The Fedoruk Centre will contribute a maximum of 15% of its cash contribution towards recovery of indirect costs of research by the Lead Institution.

INELIGIBLE COSTS

- Anything not directly related to the achievement of Project goals;
- Any part of the salary or consulting fee of a Project Leader, Co-Applicant or any person whose status makes them eligible as a Project Leader;
- Anything normally provided by the institution, such as laboratory spaces assigned to Project Leaders or co-applicants, non-specialized facilities (e.g. office space, furnishings), basic utilities, basic office equipment and supplies, administration fees, insurance, basic communications devices, regulatory compliance, patenting;
- Education-related costs leading up to a degree or other provincially recognized designation, such as thesis preparation, tuition and course fees;
- Professional development costs such as computer or language training; and
- Entertainment costs, hospitality and gifts.

Partner Contributions and Obligations

ELIGIBLE PARTNERS

Project Partners are organizations from any knowledge sector, including industry, government agencies, or research institutions, whether in Saskatchewan, elsewhere in Canada or abroad. However, the Fedoruk Centre cannot appear as a Project Partner.

Note that the Government of Canada has issued research security policies that may preclude funding of a proposal with certain organizations as Partners.² If in doubt, please consult research-security experts at your institution.

ELIGIBLE PARTNER CONTRIBUTIONS

Contributions are eligible to claim if specifically attributed to the proposed Project by the Partner.

In-kind contributions are eligible to claim if expressed as dollar values that could be verified, in principle, through accounting records, such as receipts, valuation statements, published fees or approved time records with established rates. Eligible in-kind contributions include:

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² https://science.gc.ca/site/science/en/safeguarding-your-research/guidelines-and-tools-implement-research-security/national-security-guidelines-research-partnerships

- Personnel (professional researchers, technicians, research assistants, etc.) required for the Project which would otherwise have to be hired by Project funds. The dollar value of this contribution is direct salary cost, pay plus non-discretionary benefits.
- New stipends or other training awards;
- Access to research facilities or equipment essential to the Project which would otherwise have to be purchased from the Project funds.
- Contribution of required consumables or equipment, which would otherwise have to be purchased from the Project funds.

The following in-kind contributions are not eligible to include:

- Anything not directly related to the achievement of the Project goals;
- Personnel time of Project Leaders, or persons whose status makes them eligible as a Project Leader, Co-applicants, or Partners;
- Anything normally provided by the institution, such as office space, lab space, furnishings, basic utilities, basic office equipment and supplies, administration fees, insurance, basic communications devices, regulatory compliance, patenting, etc.;
- Education-related costs leading to a degree, such as thesis preparation, tuition and course fees;
- Professional development costs such as computer or language training; and
- Entertainment costs, hospitality and gifts.

PARTNER OBLIGATIONS

• Partner Commitment Letter: At the application stage, Partners are required to provide a letter of commitment to the specific Project, outlining their eligible contributions (type, quantity, and dollar value); anticipated timelines of the contribution; and an indication of willingness to cooperate with Lead Institutions and Project Leaders in their efforts to conduct Projects in compliance with relevant policies, standards, and legal requirements. We provide a template for Partners to consider in providing evidence to assist the Project Advisory Committee (PAC) in ranking the Partnership commitment to the Project. The letter should be signed by an officer of the Partner organization with authority to commit resources.

In the event that a Project Leader has secured funds from a granting agency, which could be applied to Project costs, an authorized officer of the Lead Institution can provide the Partnership commitment letter, acknowledging the granting agency as the ultimate source of the contribution. The Lead Institution would then serve as a Project Partner.

Paying Cash Contributions: After the Fedoruk Centre funding decision, Partners are expected to pay their cash contributions to the Lead Institution, according to the terms of their commitment letters. Project Leaders and Partners are expected to respect the Lead Institution's administrative requirements and policies associated with research grants and contracts (e.g. grant letter template, funding agreement, etc). Partner cash contributions are expected to appear in Project financial reports.

Management and Administration

Reports and Disbursement of Funds

Once any terms and conditions of the award have been addressed and after the Lead Institution and Project Leader have signed a notice of acceptance (NOA), the Fedoruk Centre will release the first payment to the Lead Institution. Intermediate payments will be released on receipt of an invoice and an acceptable Progress Report and Financial Statement. A Fedoruk Centre form is provided for submission of intermediate progress reports and financial statements, at https://fedorukcentre.ca/our-offering/research-funding.php. The normal cut-off for receipt of an acceptable progress report and invoice is February 28 and payment will proceed after April 1.

The greater of 5% of the Fedoruk Centre contribution or \$5,000 will be held back pending acceptance by the Fedoruk Centre of a final financial statement and report of outcomes. A Fedoruk Centre form is provided for submission of final reports and financial statements, at https://fedorukcentre.ca/our-offering/research-funding.php. Final reports should include an explanation of any variance more than 20% between the actual expenditure and the budget for an approved item. The normal cut-off for receipt of an acceptable final report and invoice or re-payment of a residual amount is eight weeks after the Project end date.

Project Schedule

Start and end dates will be as agreed in the notice of acceptance (NOA) for a funded Project. The start date can be between the date of executing the NOA and up to four months later. The maximum Project duration is 36 months. The Fedoruk Centre will fund actual eligible costs of Projects up to the maximum approved Fedoruk Centre funding, incurred between the agreed start and end dates.

Changes to the Project Plan

Project Leaders are expected to adhere to the plan approved by the Fedoruk Centre review process. Requests for changes to the Project plan should be submitted in advance to the Fedoruk Centre for consideration of budget adjustments. Changes to a Project should be described in the Progress Report. Lead Institutions and Project Leaders must notify the Fedoruk Centre immediately in a situation where the Project Leader is unable to complete the Project, for example by departing the Lead Institution.

Monitoring

The Fedoruk Centre reserves the right to make the final determination of eligible costs and valuation of in-kind contributions. Fedoruk Centre may request additional documentation (e.g. copies of time sheets, invoices) to support the eligibility of an expenditure or the valuation of an in-kind contribution.

The Fedoruk Centre and/or its funders may request safe and convenient access to the Project site or sites and relevant personnel to evaluate progress of the Project and learn about highlights or issues.

Compliance

For continued funding, Projects must be conducted in compliance with normal ethical and legal standards as well as policies and practices of the Lead Institution and the Fedoruk Centre, governing:

- Management and conduct of research, including ethics, safety, regulations, procurements, etc;
- The financial management of research; and
- The management of research personnel and students involved in research.

Intellectual Property

Projects performed outside the Saskatchewan Cyclotron Facility

The Fedoruk Centre does not keep or claim any ownership of, or exploitation rights to, any intellectual property arising from the Project. The Fedoruk Centre expects the Lead Institution to determine these rights in accordance with its institutional policies. Notwithstanding this principle, the Fedoruk Centre requires that Project Leaders participate in *nuclear*FACTS where they can discuss their research and results in a way that does not jeopardize any intellectual property rights and agreements.

Projects conducted within the Saskatchewan Cyclotron Facility

For Projects conducted within the Saskatchewan Cyclotron Facility, there is a possibility for know-how to be developed by Fedoruk Centre employees in the course of the Work, which could strengthen the facility as a resource for access by researchers in general (i.e. improvements in the public domain). An Agreement for Facility User Access, which is made between the Fedoruk Centre and the Lead Institution, includes terms for managing intellectual property.

Ownership of Equipment

The Lead Institution will retain ownership of equipment purchased as part of a Fedoruk Centre Project.

Privacy

All applications are received by the Fedoruk Centre in confidence with personal and proprietary information used only for the purposes for which it is originally gathered, plus related activities necessary to fulfill the Fedoruk Centre's mandate.

Lead Institutions and Project Leaders who receive monetary or in-kind contributions from Partners agree via acceptance of the Fedoruk Centre funding to allow the Fedoruk Centre to share any Project reports with the Partner.

Publicity and Media Releases

Project Leaders, Partners, and/or Co-applicants are expected to respond to periodic calls from the Fedoruk Centre for complete references to publications or patents that arise from funded Projects.

Project Leaders, Partners, and/or Co-applicants are expected to alert the Fedoruk Centre as soon as an article has been accepted for publication, or a patent application has been accepted, to explore and coordinate opportunities for publicity.

Prior to any publicity releases, Project Leaders, Partners, and/or Co-applicants are requested to provide advanced notice to allow the Fedoruk Centre and stakeholders to participate in the announcement.

Contact: Niki Schrie, Human Resources and Operations Manager

Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

Email: niki.schrie@fedorukcentre.ca

The participation of Project Leaders in *nuclearFACTS* will be publicized via website.

Project Leaders, Partners, and/or Co-applicants are expected to respond to occasional requests for comment or testimonials by the Fedoruk Centre or communication departments of Lead Institutions, during or after a Project.

ACKNOWLEDGING FEDORUK CENTRE FUNDING

Project Leaders are expected to acknowledge Fedoruk Centre support in all resulting publications, abstracts, posters, presentations, other dissemination avenues, and applications of their research, citing our legal corporate name or trade name, either:

- (1) "This research was supported by the Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc. and Innovation Saskatchewan."; or
- (2) "This research was supported by the Fedoruk Centre and Innovation Saskatchewan."

Review Process for the 2024 Call for Proposals

TIMELINE

Deadline	Deliverable		
2024 Oct 1	Fedoruk Centre issues Call for Proposals		
2024 Dec 1	Project Leaders submit Proposals		
2025 Jan 16	Project Advisory Committee ranks compliant proposals		
2025 Feb 28	Fedoruk Centre issues funding decisions		
2025 April 1	Project Leader and Institution sign Notice of Acceptance and		
	Fedoruk Centre issues first installment		

The Fedoruk Centre will not consider proposals or revisions received after the deadline.

PROPOSAL PREPARATION AND SUBMISSION

For the Fedoruk Centre to consider a Proposal, the Project Leader must submit a complete package of information, by the deadline, to Niki Schrie (Niki.Schrie@fedorukcentre.ca).

Please send a <u>single PDF</u> attachment with a message title that includes the Project Leader's family name, as follows: "Fedoruk Centre 2021 Call for Proposals – Project Leader: FAMILY NAME". In addition to the single PDF package, please also attach original spreadsheets for the Project budget (item 4) and, if applicable, the Facility workstation occupancy estimator (item 5).

The single PDF attachment should include:

- 1. Institutional signatures (Fedoruk Centre form);
- 2. Proposal cover page (Fedoruk Centre form):
 - a. Contact information for the Project Leader and any Co-applicants
 - b. Project title
 - c. Plain language abstract to assist with reviewer selection and suitable for inclusion in a media release (up to 200 words). The abstract should describe the research Project and target outcomes towards advancing nuclear research, development and training in Saskatchewan; and
 - d. Contact information and brief justification for up to three potential subject-matter-expert reviewers.
- 3. Project Description, following the format and page limits described in the following section;
- 4. Project budget spreadsheet (Fedoruk Centre form, version 2023);
- 5. Facility workstation occupancy estimator, if needed (Fedoruk Centre worksheet);
- 6. Partner commitment letter(s) (Template suggested by Fedoruk Centre); and
- 7. CVs for the Project Leader and Co-applicants.

Forms are available at the website:

https://fedorukcentre.ca/our-offering/research-funding.php#HowtoSubmit

Fedoruk Centre staff cannot advise Project Leaders on the contents of their proposals or compliance with terms in this Awards Guide, prior to the release of decision letters.

PROJECT DESCRIPTION

The Project Description is the primary source of information for the Project Advisory Committee (PAC) to understand how your proposal addresses four Review Criteria, and thus determine its rank among other proposals for funding. In the layout described below, each Review Criterion is accompanied by bullet statements that the PAC will consider. Suggestions of what the Project Leader might include in the Project Description, are shown in blue italics. Please use Font 11 Calibri or Arial, and 1" margins on standard paper 8.5"x11" in portrait format.

To be considered for ranking, page limits must be respected.

Layout of Project Description to Address Four Review Criteria

1. Alignment (up to 1 page)

- The Project will help to place Saskatchewan among global leaders in nuclear research, development, and training.
- The Project will deliver impacts in one or more of the Fedoruk Centre's Impact Areas.

2. Feasibility (up to 6 pages)

- The **Project Context** builds logically on prior work and established methodology. Summarize prior work, key references, focus of the Project and general methodology.
- The **Project Plan** is clearly defined with demonstrable milestones and outcomes. Describe the Project plan as a series of practical steps towards achieving the target outcomes within a specified timeframe that will serve as a gauge for assessing progress in annual reports. A graphical timeline would be helpful, and could include milestones such as: recruit and train personnel; acquire equipment and/or supplies; meet special requirements (ethics, biohazards etc.); access facilities; engage collaborators; develop skills; perform the work; disseminate knowledge; engage the community etc.
- The **Project Team** has the necessary expertise to deliver on the target outcomes.

 Describe the expertise, roles and responsibilities of team members affecting the feasibility of the Project. Include a table of previous Fedoruk Centre Projects managed by team members, including Project title, funding, and references of any resulting publications or patents.
- The **Project Budget** and overall resource plan are necessary and appropriate for achieving target outcomes.

Describe how the requested Fedoruk Centre funding and Partner contributions will cover the direct Costs of resources needed to complete the Project. Reference the Budget Item numbers in the Fedoruk Centre Budget spreadsheet, which you will complete as part of this application. (e.g. 0.5 x (salary+benefits) of a post-doctoral researcher who will work half time on this Project). Note that institutional overheads are calculated automatically; applicants need only propose and justify the direct costs of Project resources.

3. Partnerships (up to 1 page)

- The Partners make a significant commitment towards achieving Project goals.

 Describe the Partners and their interest in the Project. Explain how their contributions (cash, equipment, expertise) strengthen Project outcomes and how their involvement will advance networks, helping to place Saskatchewan among global leaders in nuclear research, development and training.
- Disclose Partner relationships that may be perceived as conflicts of interest (e.g. current contracts, stakeholders, membership on a Board or advisory committee)

4. Impacts (up to 1 page)

- Target outcomes are described and linked to social and economic benefits for Saskatchewan, including capacity-building for nuclear research and training.
- Plans for impact include commitments to engage users of the research in knowledge exchange and translation to realize the social and economic benefits.

RANKING, FEEDBACK AND RELEASE OF FUNDING

Project Advisory Committee (PAC) members are listed on the web page https://fedorukcentre.ca/our-offering/research-funding.php#ProjectAdvisoryCommittee

PAC members bring general expertise from beyond Saskatchewan in the key impact areas of the Fedoruk Centre. They are free to recruit subject-matter experts for deeper insights, if needed.

In a meeting with Fedoruk Centre management, the PAC will assign ratings to each proposal and provide comments for feedback, with reference to the Review Criteria, as shown in Table 1. The PAC may also advise the Fedoruk Centre Executive Director on matters such as conflicts of interest, intellectual property, partial funding of Projects, special conditions, or a cut-off in the ranked list. Proposals will be funded in order of rank until the total Budget is consumed.

Project Leaders will receive comments from the PAC, whether the proposal is funded or unfunded; however, ratings will be confidential. For funded proposals, notification may contain additional terms and conditions specific to the award. The Fedoruk Centre will disburse funds when terms and conditions have been met and the Lead Institution and Project Leader have signed a Notice of Acceptance.

Table 1 – Rating guide for ranking Project Proposals (CONFIDENTIAL)

Review Criterion	Rating	Comments
Alignment		
Feasibility		
Partnerships		
Impacts		

The rating levels are:

- **9 10 Excellent**: the proposal addresses this criterion exceptionally well and is expected to advance the purpose of the Fedoruk Centre very effectively.
- **7 8 Very Good:** the proposal addresses this criterion well above average and is expected to advance the purpose of the Fedoruk Centre effectively.
- **5 6 Good**: the proposal addresses this criterion at a level adequate to advance the purpose of the Fedoruk Centre.
- **3 4 Marginal**: the proposal is inadequate in addressing some aspects of this criterion and may be ineffective in advancing the purpose of the Fedoruk Centre.
- **1 2 Unsatisfactory**: the proposal does not address this criterion sufficiently to expect significant advancement of the purpose of the Fedoruk Centre.

Questions and Comments

Questions or comments about the Fedoruk Centre Project proposal system would be gratefully received.

Please feel free to contact Niki Schrie, our Human Resources and Operations Manager: Niki.Schrie@fedorukcentre.ca