

## Description

The Explorations Program is intended to allow qualified investigators to seek funding for research directly related to prion diseases and human neurodegenerative diseases and dementias where the etiology involves protein misfolding and the pathogenesis has prion-like characteristics. Funding is accessible for all relevant fields of inquiry in the themes as described below. The deadline for submission of applications is **Monday, December 4<sup>th</sup>, 2017**.

Grantees will be expected to participate in the training of young investigators, especially graduate students and fellows, and their stipends may be paid from Alberta Prion Research Institute (Prion Institute) grants. Trainees may hold other awards or salary support while receiving stipends from Prion Institute grants.

All usual operating expenses for a research project that are consistent with the Tri-Council policy on the use of grant funding ([www.nserc.ca](http://www.nserc.ca)) will be allowable for grants funded in an Explorations Program Competition except salaries for investigators and overhead costs. Final decisions on the amount of funding awarded and limitations on specific categories of spending remain with the Prion Institute and will be identified in an Alberta Innovates award agreement.

### Maximum amounts available for funding:

There are two tiers of funding available in the Explorations competition:

**Tier I:** Grants of up to \$200,000 for a maximum period of **two years**

**Tier II:** Grants of up to \$300,000 for a maximum period of **three years**

### Themes accessible for funding:

#### Prion Diseases

Protein Folding and Misfolding  
Pathobiology of Transmissible Spongiform Encephalopathies (TSEs)  
Surveillance and Control  
TSEs and Society

#### Prion-like human neurodegenerative diseases and dementias

Protein Folding and Misfolding  
Prion-like Mechanisms in Pathobiology

# Explorations Program Round VII

## Application Checklist

Applications must be submitted online through the [Alberta Innovates application website](#). The web application has limitations set in numbers of characters: One page on the web form, in 11-point type, is approximately 3,800 characters including spaces.

Applications must contain the following information:

**Include a completed checklist in section 6.0 of your proposal**

	Section	Web Section #
<input type="checkbox"/>	Project Title (150 characters including spaces)	2.1
<input type="checkbox"/>	Lay Summary (1,900 characters including spaces ~ half page)	2.1
<input type="checkbox"/>	Project Scientific Summary (1,900 characters including spaces ~ half page)	2.1
<input type="checkbox"/>	Research Leader	2.1
<input type="checkbox"/>	Institutional Approvals (Signature page(s), add as appendices)	2.2 / 6.0
<input type="checkbox"/>	Research Plan including identification of relevant theme areas (19,000 characters, including spaces ~ five pages) a Maximum of <u>four</u> pages of appendices for tables, charts or images, to support the Research Plan.	3.1 / 6.0
<input type="checkbox"/>	Training component details (3,800 characters including spaces ~ one page)	3.2
<input type="checkbox"/>	Areas of Research (Identify Prion Institute theme area)	3.2
<input type="checkbox"/>	What is innovative about this project? (max 1500 characters including spaces)	3.2
<input type="checkbox"/>	Knowledge Exchange Plans (1,900 characters including spaces ~ half page)	3.3
<input type="checkbox"/>	Deliverables, milestones and schedule (3,800 characters including spaces ~ one page)	3.4
<input type="checkbox"/>	Gantt Chart (add as appendix)	3.4 / 6.0
<input type="checkbox"/>	Impact Plan (3,800 characters including spaces ~ one page)	3.5
<input type="checkbox"/>	Industry Utilization - Commercialization (1,900 characters including spaces ~ half page)	3.6
<input type="checkbox"/>	Project Team: Identify PI and Co-PIs (Max 7,600 characters, including spaces ~ two pages)	3.7 / 6.0
<input type="checkbox"/>	Funding Declaration (950 characters including spaces ~ A quarter page) ( <a href="http://prioninstitute.ca/content/programs">http://prioninstitute.ca/content/programs</a> add as appendix)	3.8 / 6.0
<input type="checkbox"/>	Regulatory Approvals (No limit; add as appendices)	3.9 / 6.0
<input type="checkbox"/>	Literature and URLs cited (No limit; add as appendices)	3.10 / 6.0
<input type="checkbox"/>	Yearly Budget by Source	4.1
<input type="checkbox"/>	Sources of Funding	4.2
<input type="checkbox"/>	Budget Justification (3,800 characters including spaces ~ one page)	4.3
<input type="checkbox"/>	Budget Spreadsheet ( <a href="http://prioninstitute.ca/content/programs">http://prioninstitute.ca/content/programs</a> add as appendix)	4.3 / 6.0
<input type="checkbox"/>	R&D Team Data	5.0
<input type="checkbox"/>	Common CV or NSERC Form 100 for all team members (No limit, add as appendices)	6.0
<input type="checkbox"/>	Document Attachments Checklist	6.0

# Elements of a Full Application

## Lay Summary

The lay summary should be brief and provide in non-scientific terms what problem this research is addressing and how the problem is being approached in this project. Lay readers will read this summary for ease of understanding prior to the project being forwarded for peer review.

If the proposal is successful, the lay summary might be used for distribution to the public through media releases or other means.

## Project Scientific Summary

The scientific summary should be brief and provide in scientific terms what problem this research is addressing and how the problem is being approached in this project.

### Scientific Characters

- The online application software will reformat text that uses subscripts, superscripts, bold and italic formats to regular text.
- If a section in a proposal requires specialized formatting of text (bold, italic, subscript and superscript), tables or images, you may add the section as a Word document or PDF in the appendices (Section 6 – Document Attachments) of the proposal.
- If appending a scientific summary, tables or images, please indicate in the Project Scientific Summary if you have appended a document, for example: “*See attached scientific summary in Section 6*”, or “*Refer to attached table in Section 6*”.
- The character count and all other conditions in the appended section must conform to the proposal requirements.

## Research Leader

Only one principal investigator will be responsible for the administration and reporting on the progress of a project. Other arrangements among participating researchers may also be made within a project and should be noted in the proposal.

## Institutional Approvals

Signatures approving the proposal must be obtained from the host institution by the applicant. A PDF of the signed approval form(s) must be attached to Section 6. Document Attachments.

Applicants funded in this competition may be required to provide the Prion Institute with the original signed signature form(s) if the proposal is funded.

### **Applications originating from:**

**The University of Alberta:** Use the [Research Services Signature Page](http://www.rso.ualberta.ca/Applying/ApplicationsProposals/Signatures.aspx) at <http://www.rso.ualberta.ca/Applying/ApplicationsProposals/Signatures.aspx>

**The University of Calgary:** use the [Research Services Office, Research Funding signature page](http://www.ucalgary.ca/research/files/research/rfaa-template.pdf) at <http://www.ucalgary.ca/research/files/research/rfaa-template.pdf>

**The University of Lethbridge:** use the "Research Proposal Form" available from the U of L online portal.

**All Other Applicants:** use the PDF form found at the top of the "Preview" screen in the online application form, "**Signatures and Employer's Approval**" form.

To obtain signatures from Co-Investigator. Co-Investigators are not required to obtain signatures from their supervisor(s) use the "**Signatures and Employer's Approval**" PDF found at the top of the Preview screen,

For the purpose of completing the Signature Approval Forms, enter a project start date that is no earlier than March 1, 2018 and an end date that corresponds to the duration of the proposal.

**Where applicable**, applicants should obtain evidence of support from collaborators in the form of a **letter of support** from the individual, group, agency or industry collaborator(s). Attach letters of support to section 6; "Document Attachments" in the application form.

### **Research Plan**

Provide a description of the research to be undertaken. This should include a framework for the research, questions to be addressed, methods and approaches to be used, use of collaborative approaches and anticipated outcomes. The description should clearly demonstrate how the project will further the objectives of one or more of the theme areas of the Prion Institute.

Particular attention should be given to a description of planned national and international collaborations that will allow the research team to access expertise, facilities and materials relevant to prion and prion-like protein misfolding research.

**Applicants must provide sample size and power calculations to indicate how reliable conclusions will be made.**

Applicants may append a **maximum four (4) pages** for this section of the proposal for tables, charts or images to include as a part of your proposal. Figures and diagram must be of sufficient size to be easily legible.

## Scientific Characters

- The online application software will reformat text that uses subscripts, superscripts, bold and italic formats to regular text.
- If a section in a proposal requires specialized formatting of text (bold, italic, subscript and superscript), tables or images, you may add the section as a Word document or PDF in the appendices (Section 6 – Document Attachments) of the proposal.
- If appending a scientific summary, tables or images, please indicate in the Project Scientific Summary if you have appended a document, for example: “*See attached scientific summary in Section 6*”, or “*Refer to attached table in Section 6*”.
- The character count and all other conditions in the appended section must conform to the proposal requirements.

## Training Component

Discuss how the research group will address the preparation of highly-qualified people in prion and protein misfolding research within Alberta. Provide details of how trainees will be prepared for further research in the area and how their training will expose them to other experiences related to research and its application in society.

Particular attention should be given to a description of how the planned training program will provide trainees with access to experts, facilities and training at state-of-the-art labs, nationally and internationally, and how they will be exposed to additional activities such as, but not limited to, knowledge exchange and research management.

Applicants must provide details of the history of training and outcomes for previous trainees.

## Areas of Research

Identify one of the Prion Institute theme areas the proposal will address. If the proposal addresses more than one theme, identify the theme that is **most relevant** first:

### **Protein folding and misfolding**

Applying tools of structural biology, biophysics, biochemistry, molecular biology and bio-computing to understand the mechanisms of BSE, TSEs and other diseases of protein misfolding.

### **Pathobiology of TSEs**

Understanding BSE/TSE biology susceptibility, transmissibility and disease progression using genomics, proteomics, metabolomics and other innovative approaches that will contribute to the diagnosis, prevention, cure, and possible elimination of the diseases.

### **Surveillance and Control**

Minimizing risks associated with prion exposure, including disposal of specified risk material, technologies for inactivation and decontamination of prions in water, wastewater, soil and the environment.

Also focused on diagnosing BSE based on prion genomics, focusing on immunologic and biomedical engineering technologies to apply, validate and improve antemortem tests developed elsewhere and to explore opportunities for new tests to be developed in Alberta.

### **TSEs and Society**

Studying policy and response modeling, assessing economic and sociological components of community impact, risk perceptions, consumer acceptance and impact on markets, and ensuring fair and accurate communication of scientific advances. This component will also provide information useful to all levels of government for the development of policies regarding TSEs.

### **Innovation**

What is novel, innovative or unique about this proposal? Describe what new idea, method, or device this proposal will develop to further an existing need or advancement of a new technology.

### **Knowledge Exchange**

Provide strategies for exchanging knowledge including a description of partnerships with the public and private sector. The Prion Institute strongly encourages early interaction between researchers and potential end users during the design and throughout the period of the grant and in the utilization of results of the research findings.

### **Deliverables, Milestones and Schedules**

Identify the expected deliverables, milestones and provide a schedule of the project. Attach a **Gantt chart** in Section 6 'Document Attachments'. Gantt charts should indicate intervals of six months at the least. Refer to [https://en.wikipedia.org/wiki/Gantt\\_chart](https://en.wikipedia.org/wiki/Gantt_chart) for a description of a Gantt chart.

### **Impact Plan**

Describe how your project will engage; policy makers, government, industry, and approach publishing and patenting. Provide a realistic estimate of the time frame for expected results from this proposal to have a significant impact in the development of policy, innovation in treatment, or innovation in commercial applications in response to industry needs. How will you facilitate any of these activities?

At what stage in your research will you approach these entities?

### **Industry Utilization - Commercialization**

Describe the strategy for management and protection of intellectual property, as well as plans for the handling of any new intellectual property that may result from the Prion Institute-sponsored research. The Prion Institute does not wish to hold any rights to Intellectual Property but strongly encourages the development of IP. The Prion Institute University-Industry Grants might be available to support this process through the Prion Institute's IDEal Program.

## **Project Team**

Provide a brief description of the research experience and background of proposed investigator(s) and include the nature and extent of the collaboration between investigators. Include common CVs or NSERC Form 100s as appendices in Section 6 'Document Attachments' of the application form.

Only one principal investigator will be responsible for the administration and reporting on the progress of a project.

## **Funding Declaration**

Complete the table 'Explorations Round VII Funding Declaration 2018", available from the Prion Institute website <http://prioninstitute.ca/content/programs>. Identify the past five years of funding and proposals under review for the Principal Investigator. Append the Funding Declaration table in Section 6.0.

## **Regulatory Approvals**

Where applicable, in the appendices (Section 6.0), provide certificates and approvals to carry out the research (example Animal Care Certificate and Human Ethics approval).

## **Literature Cited**

Provide complete reference information to all literature cited throughout the proposal (No limit, add as appendices)

## **Detailed Budget Figures and Justification**

The Explorations Program, Round VII Competition has two tiers:

Tier I: Grants of up to \$200,000 for a period of up to **two years**

Tier II: Grants of up to \$300,000 for a period of up to **three years**

Budgets for applications must be carefully documented and justified. Prion Institute funds may be used for stipends for trainees, research operating costs, equipment, costs related to national and international collaborations, allowable travel costs and other reasonable expenditures as required to carry out the project.

Project expenses must be consistent with the Tri-Council policy on the use of research grant funding, which is available at [www.nserc.gc.ca](http://www.nserc.gc.ca). Costs for compensation of investigators and for overhead are not allowed.

## Document Attachments

Attach **final documents** only. If you attach a document in error, the document can be deleted or removed.

**Proposal attachments must be provided in the following order:**

1. **Research Plan** - Append this section to the proposal **if** there is text in scientific nomenclature such as italics, subscript and superscript.
  - a. Applicants may append a **maximum four (4) pages** for this section of the proposal for tables, charts or images to include as a part of your proposal. Figures and diagram must be of sufficient size to be easily legible.
2. **Gantt Chart** - Refer to [https://en.wikipedia.org/wiki/Gantt\\_chart](https://en.wikipedia.org/wiki/Gantt_chart) for a description of a Gantt chart.
3. **Funding Declaration Table** - Complete the Explorations Funding Declaration available from the Prion Institute website <http://prioninstitute.ca/content/programs>.
4. **Budget Spreadsheet** - Complete the Explorations Budget Spreadsheet 2018 available from the Prion Institute website <http://prioninstitute.ca/content/programs>.
5. **Curriculum Vitae of Nominated Principal Investigator and Project Team Members**
6. **Publications and patents, other evidence of productivity**
7. **Regulatory Approvals forms** where available (examples; ethics approval, animal care certificate)
8. **Other attachments/Letters of Support**
9. **Institutional approval forms** where available (examples; signature pages, ethics, animal care approval)
10. **Explorations Program Round VII Guidelines Application Checklist** - (Explorations Program, Round VII Guidelines page 2) indicating all items in the application have been completed.

## Important Dates

Application Deadline Date                      **Monday, December 4, 2017**

Announcement of Results                      February/March 2018

## Submission of Application

Application forms are to be completed and submitted through the **Alberta Innovates application website** listed under the Explorations Program, Round VII Competition.



## Review Process

The Alberta Prion Research Institute's International Research Advisory Council (IRAC) will review applications in conjunction with appropriate external peer reviewers from the international community. Decision and funding will be made after consideration of IRAC recommendations.

**Applicants may suggest a list** of up to three Canadian and/or foreign reviewers that they think have the expertise to review your application. The Prion Institute reserves the right to make the final selection of external reviewers.

1. Applicants should not suggest reviewers who are in conflict of interest with their proposals.
2. The recommended reviewer list must include the reviewer **names, mailing addresses, telephone numbers and email addresses**. Identify the proposal by the proposal number and project title.
3. Forward the list of suggested reviewers to Ron Clarkson at [ron.clarkson@albertainnovates.ca](mailto:ron.clarkson@albertainnovates.ca).

## Terms

Funding is based on two tiers. Evaluation of submissions to the Explorations Program is based on the success in meeting the high expectations of the program and will be based upon the following:

- Demonstrated contributions to the desired outcomes of the Alberta Prion Research Institute;
- The quality of the research;
- The quality of the participating investigators and trainees;
- The training experience proposed for highly-qualified people;
- Success in attracting funding from other sources;
- Commercialization of inventions and research results; and
- Process in knowledge exchange.

## Monitoring

Funding recipients are required to provide reports on all projects using Alberta Prion Research Institute report forms and schedules. The Prion Institute must be notified of and approve significant changes to the project plan. Alberta Innovates, as the parent agency of the Alberta Prion Research Institute, reserves the right to call for a formal review and to terminate a project if progress appears to be less than satisfactory.

## Reporting

The Alberta Prion Research Institute and Alberta Innovates are committed to demonstrating results to Albertans for the money invested in research. Processes for monitoring progress and appropriate use of funds, as well as for performance measurement, reporting and program

evaluation, will be in place. Funding recipients must adhere to the Prion Institute's reporting requirements and provide requested information in a timely fashion. They must contribute to the monitoring, review and evaluation of the Prion Institute's programs by participating in evaluation studies, program review and audits and provide data or reports as required for the purpose of collecting information to assess progress and results. They must also encourage their associates, trainees and administration to participate in the monitoring of the Prion Institute's programs, policies and processes as required.

Projects supported are required to report to annually using Prion Institute reporting forms.

Grant recipients must file copies of all publications with the Prion Institute and must report on all knowledge exchange activities with stakeholders within a maximum of three months of publication or of the knowledge exchange activity having taken place.

Continuance of grants will be dependent on adherence to reporting deadlines and on scientific and administrative review at each reporting period.

## **Communications**

Funding recipients are required to acknowledge the Alberta Prion Research Institute and Alberta Innovates in all communications or publications related to the project. Funding recipients are expected to participate in outreach activities that communicate the benefits of the research program to Albertans and beyond. The Prion Institute expects advance notification of public release of information concerning results from projects that it supports. For further details, please contact the Communications Manager of the Alberta Prion Research Institute.

## **Freedom of Information and Protection of Privacy Act**

Alberta Innovates is regulated by the Freedom of Information and Protection of Privacy Act of Alberta. Information provided by applicants on personal data forms is for the use of Alberta Innovates only and will not be communicated in any way to anyone outside of the organization, except as required under the Act and to those involved in the grant review processes and organizations that partner with the Prion Institute in funding programs. It is a condition of acceptance of a Prion Institute award that for a project that the lay summary or a summary written by a staff member of Alberta Innovates of the project may be released publically at any time at the Prion Institute's discretion.

## **Contact Information**

For questions on Alberta Prion Research Institute grant program guidelines, application information and the peer review process, contact:

Ron Clarkson  
Director, Prion Programs  
Alberta Prion Research Institute  
Phone: (780) 638-3788  
Fax: (780) 427-3252  
Email: [ron.clarkson@albertainnovates.ca](mailto:ron.clarkson@albertainnovates.ca)