

**LETTER OF INTENT**  
**Transformational Research 2017**

**DEADLINE: Friday, March 31, 2017, 2:00 p.m. EDT** Applicants will be notified of Proposal invitations in June 2017.

***This Letter of Intent is an example only. Do not complete this paper application.***  
 Please submit the Letter of Intent online through the Institute's grant management system at <https://weston.smartsimple.ca/welcome/neuroscience>

**Principal Applicant:**

**Project Title:**

**Applicant Details**

Team Members	Organizations	Primary Contact Information	Role in Project	Estimated Time Spent on Project
1. Salutation:	Primary Organization:	Address:	<input type="checkbox"/> Principal Applicant	%
First Name:	Position Title:	Phone:	<input type="checkbox"/> Co-Applicant	
Last Name:	Other Affiliations/ Position Titles:	Email:	<input type="checkbox"/> Collaborator	
2. Salutation:	Primary Organization:	Address:	<input type="checkbox"/> Principal Applicant	%
First Name:	Position Title:	Phone:	<input type="checkbox"/> Co-Applicant	
Last Name:	Other Affiliations/ Position Titles:	Email:	<input type="checkbox"/> Collaborator	

*Note: Projects are not limited to two team members as laid out on this sample application form; projects may include as many team members as needed for the successful execution of the project.*

## Application Overview

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### 1. Keywords to describe the proposed work:

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#### **The Institute defines neurodegenerative diseases of aging to include:**

- Alzheimer's disease
- Dementia with Lewy bodies
- Frontotemporal dementia
- Multiple system atrophy
- Parkinson's disease
- Progressive supranuclear palsy
- Vascular contributions to the above diseases (not stroke-mediated vascular disease)
- Prodromes to the above diseases, including
  - Mild cognitive impairment as prodromal to Alzheimer's disease
  - REM sleep behaviour disorder as prodromal to Parkinson's disease

Proposed projects may relate to any disease(s) but must have impact on the diseases above and will be adjudicated based on their potential impact on these diseases.

#### **The Institute defines translational research to be:**

Applied research towards developing therapeutics for the prevention and/or treatment of human disease.

#### **The Institute defines therapeutics to be:**

A pharmacological approach (including small molecules, biologics, cell therapies and vaccines, including drug repositioning and repurposing), medical device, surgical intervention, or magnetic or electrical brain stimulation. Complementary approaches such as exercise, acupuncture, music, dietary and nutritional supplements are not considered therapeutics. Therapeutics can be for symptomatic relief, disease modification, or prevention.

Identification of novel therapeutics is in scope; however, identification of novel targets is out of scope.

#### **The Institute defines tools to be:**

Items that accelerates development of therapeutics, e.g., imaging techniques or reagents, biomarkers, and diagnostics.

- Tools must have direct impact on accelerating the translational development of therapeutics for neurodegenerative diseases of aging. Any value the tools contribute to basic research will not be taken into consideration.
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- A strong rationale and hypothesis must be provided for the development of a tool, including how the tool will have a direct impact on translational research as defined by the Institute (i.e., target validation to phase IIa clinical trials).
- Projects covering only the discovery/identification of a tool are out of scope.
- Tools that will expand our knowledge of basic research can be important for the field, but the Institute will only value the tool for its immediate impact on translational research. This means, for example, that tools will not be valued for their ability to help identify new targets.

**About specific tools:**

**For biomarkers,**

- Post mortem tissue can only be used for validation (not identification) of biomarkers. For example, “omics” studies on post mortem tissue are generally out of scope.
- If project covers biomarker identification,
  - biomarker identification alone is not in scope:
  - The identification must be a finite process that is directly linked to a validation process, and the project must also cover at least a portion of the validation of the identified biomarkers.
  - All the data necessary for identification and validation of the biomarkers must already be available.
  - Validation of markers must occur in a well-defined clinical cohort.

**For cognitive assessment tools,**

- Must have a strong hypothesis and already have available a dataset to validate the assessment.
- Requires discussion of why the new assessment would be better than existing ones.

**The identification of genes implicated in disease is not in scope.**

**Clinical samples/data:**

Support includes projects that use clinical samples/data. However, conducting a clinical trial (e.g., testing a therapeutic or tool directly on patients) is not eligible for this program. Clinical samples/data can be from an ongoing clinical trial or from new patients recruited for this project. If the collected samples/data will be used initially for biomarker identification, this must be a finite process that is directly linked to a validation process in a well-defined clinical cohort (please refer to the biomarker eligibility criteria above).

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**2. What type of tool(s) or therapeutic(s) is being developed as the primary goal of the project?**

*(Please select only one - tool or therapeutic – that is being **developed** as the primary goal of the project, e.g., do not select “Animal model” unless you are developing a new animal model.)*

**Tool**

Animal model

Assay/screen

**Therapeutic**

Biologic

Cell therapy

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- |  |   |
|--|---|
| <input type="checkbox"/> Biomarker                       | <input type="checkbox"/> Electrical brain stimulation |
| <input type="checkbox"/> Cell line                       | <input type="checkbox"/> Magnetic brain stimulation   |
| <input type="checkbox"/> Clinical assessment instruments | <input type="checkbox"/> Medical device               |
| <input type="checkbox"/> Diagnostic                      | <input type="checkbox"/> Small molecule               |
| <input type="checkbox"/> Imaging technique or reagent    | <input type="checkbox"/> Surgical intervention        |
| <input type="checkbox"/> New method of drug delivery     | <input type="checkbox"/> Vaccine                      |
| <input type="checkbox"/> Probe                           | <input type="checkbox"/> Other <i>Please specify:</i> |
| <input type="checkbox"/> Other <i>Please specify:</i>    |   |

**3. If a tool is being developed, please specify the type of tool being proposed in the project. If you are not developing a tool, please type "None".**

**4. If a therapeutic is being developed as the primary goal of the project, what preclinical phase(s) of development does the project cover?**

*(Select only those that apply.)*

- |  |   |
|--|---|
| <input type="checkbox"/> Target validation           | <input type="checkbox"/> Safety and toxicity in animals |
| <input type="checkbox"/> Assay development           | <input type="checkbox"/> Efficacy in animals            |
| <input type="checkbox"/> Screening and hits to leads | <input type="checkbox"/> None                           |
| <input type="checkbox"/> Lead optimization           | <input type="checkbox"/> Other <i>Please specify:</i>   |

**5. Research will have a significant impact in which neurodegenerative disease(s) of aging?**

*(Select only those that apply. There is no benefit to selecting more diseases.)*

- |   |  |
|---|--|
| <input type="checkbox"/> Alzheimer's disease            | <input type="checkbox"/> Vascular contributions to the listed diseases<br>(not stroke-mediated vascular disease)                         |
| <input type="checkbox"/> Frontotemporal dementia        | <input type="checkbox"/> Prodromes to the listed diseases (please also<br>check the disease(s) to which your condition is a<br>prodrome) |
| <input type="checkbox"/> Lewy body dementia             |  |
| <input type="checkbox"/> Multiple system atrophy        |  |
| <input type="checkbox"/> Parkinson's disease            |  |
| <input type="checkbox"/> Progressive supranuclear palsy |  |

**6. Relevance of proposed work to the Institute's mandate:** using the Institute's definitions (above), explain how the primary tool or therapeutic being developed in this project (as identified in question 2 above) is translational research, and will accelerate the development of therapeutics for neurodegenerative diseases of aging. For tools, this requires addressing how the tool will have immediate impact on accelerating translational research on therapeutics. *(maximum 200 words.)*

**7. What type of tool(s) and/or therapeutic(s) is being developed aside from the primary goal of the project?**

*(Please select only the tool(s) and/or therapeutic(s) that are being developed as a main goal of the project; do not select items that are being used as part of the project, e.g., do not select "Animal model" unless you are developing a new animal model. There is no benefit to selecting more items than fewer items. Select "None" if there are no tool(s) and/or therapeutic(s) being developed aside from the primary goal of the project.)*

**Tool**

- Animal model
- Assay/screen
- Biomarker
- Cell line
- Clinical assessment instruments
- Diagnostic
- Imaging technique or reagent
- New method of drug delivery
- Probe
- Other *Please specify:*

**Therapeutic**

- Biologic
- Cell therapy
- Electrical brain stimulation
- Magnetic brain stimulation
- Medical device
- Small molecule
- Surgical intervention
- Vaccine
- Other *Please specify:*
- None

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**8.** Have you applied to the Weston Brain Institute previously with similar proposed work? If so, specify the previous LOI title and program applied to.  Yes *Please specify:*  
 No  
 Please briefly explain how this LOI is different than the previously submitted work.  
 (This information will not be used to assess the application.)

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**9.** Have you applied to other funding agencies with the same proposed work?  Yes *Please specify:*  
 No  
 (This information will not be used to assess the application.)

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**10.** Is this your first time applying for a neuroscience grant from the Institute?  Yes  
 No  
 (This information will not be used to assess the application.)

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**11.** Is this your first application for a research grant specifically in the area of neurodegenerative diseases of aging?  Yes  
 No  
 (This information will not be used to assess the application.)

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The adjudication committee for this program does not include Canadians. Please list the full names of any individuals located outside of Canada who are competitive with you and therefore should not review your application. Please do not exclude reviewers for other reasons as we are unable to honour those requests. Type "None" if you have no reviewer exclusion.  
 (This information will not be used to assess the application.)

## Project Information

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**1. Central hypothesis, goals and specific aims:** (*maximum 500 words*)

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**2. Significance and impact:** Why is it important that the proposed work be carried out? How will successful completion of this work accelerate the development of therapeutics for neurodegenerative diseases of aging? (*maximum 200 words*)

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**3. Experimental approach:** Please outline how the proposed work will be carried out and interpreted, including clear go/no-go criteria. Please do not include background information (e.g., pathology, etiology or incidence/prevalence) of neurodegenerative diseases of aging. (*maximum 1300 words*)

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**4. Preliminary data:** Preliminary data that best supports the application should be uploaded as a PDF of maximum 1 page.

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**List of publications cited in the application:** Please include full citations with a complete author list and PMID.

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