

LETTER OF INTENT

*Rapid Response: Ireland, Netherlands, UK 2018 (Fluid Biomarkers)*

DEADLINE: **Monday, April 23, 2018 16:00 BST**

Applicants will be notified of Proposal invitations in November 2018.

***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"/> Administrative Supervisor                             |                                 |
| Last Name:     | Other Affiliations/<br>Position Titles: | Email:                      | <input type="checkbox"/> Co-Applicant<br><input type="checkbox"/> Collaborator |                                 |
| 2. Salutation: | Primary Organization:                   | Address:                    | <input type="checkbox"/> Principal Applicant                                   | %                               |
| First Name:    | Position Title:                         | Phone:                      | <input type="checkbox"/> Administrative Supervisor                             |                                 |
| Last Name:     | Other Affiliations/<br>Position Titles: | Email:                      | <input type="checkbox"/> Co-Applicant<br><input type="checkbox"/> Collaborator |                                 |

*Note: Projects are not limited to two team members as shown in 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:

#### 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.

#### The Institute defines tools to be:

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

- Tools must have direct impact on the translational development of therapeutics (as defined by the Institute, i.e., target validation to phase IIa clinical trials) for neurodegenerative diseases of aging and will be valued only on their ability to do this.
  - Any value the tools contribute to basic research will not be taken into consideration. For

example, tools will not be valued for their ability to identify new targets or understand disease mechanisms.

- Projects covering only the discovery/identification of a tool are out of scope.

**Novel biomarkers:** biomarkers that have been insufficiently studied.

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**2. Research will have an impact in which neurodegenerative disease(s) of aging?**

*(Please select all that apply. There is no benefit to selecting more diseases than fewer diseases.)*

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

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**3. What is the primary purpose of the biomarker?**

- Diagnostic – identify patients with a particular disease or disease subset
- Prognostic – indicate future clinical progression
- Predictive – identify patients likely to respond (favourably or unfavourably) to a specific treatment
- Response to therapy – indicate that biological response has occurred after receiving a therapeutic intervention (e.g., a surrogate for a clinical end point)

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**4. In one sentence, describe the biomarker. (E.g., increased mRNA123 in white blood cells as a biomarker for early disease diagnosis in Parkinson's disease).**

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**5. 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 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. *(200 words max)*

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Have you applied to the Weston Brain Institute previously with similar proposed work? If so, specify the previous LOI title and program applied to. Please briefly explain how this LOI is different than the previously submitted work.  Yes *Please specify:*  
 No

*(This information will not be used to assess the application.)*

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

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

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Please list the full name of any individuals who are competitive with your research and therefore should not review your application. Please do not exclude reviewers for other reasons, as we are unable to honor these 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 of the project:** *(200 words maximum)*

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2. **Background and significance:** 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? *(200 words maximum)*

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3. **Novelty of the biomarker:** Justify why this biomarker would be considered novel for the disease of interest. *(maximum 200 words.)*

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4. **Experimental approach:** 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. If available, include a power calculation, and if not, address when one would be completed for the study. *(600 words maximum)*

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5. **How will a successful outcome accelerate the development of therapeutics for neurodegenerative diseases of aging?** *(200 words maximum)*

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**List of publications cited in the application and other publications directly relevant to the proposed work:** *(include full citations with a complete author list and PMID)*

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**Supporting data:** *(A maximum of 1 page of data, from your lab or elsewhere, to support the application can be uploaded, e.g., figures or tables.)*

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