International Fellowships: 2018

DEADLINE: Friday, May 4th, 2018 **2:00 p.m. EDT**
Applicants will be notified of results in July 2018.

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

Application number:

Principal applicant:

Project title:

Applicant details

	Team Members	Organizations	Primary Contact Information	Role in Project
1.	Salutation: First Name: Last Name: Student number:	Primary Organization: Position Title: Other Affiliations/ Position Titles:	Address: Phone: Email:	☐ Applicant (PhD Student)
2.	Salutation: First Name: Last Name:	Primary Organization: Position Title: Other Affiliations/ Position Titles:	Address: Phone: Email:	☐ PhD Supervisor ☐ Co-Supervisor ☐ Host Supervisor
3.	Salutation: First Name:	Primary Organization: Position Title:	Address: Phone:	☐ PhD Supervisor ☐ Co-Supervisor

Last Name:	Other Affiliations/ Position Titles:	Email:	☐ Host Supervisor

Note: Projects are not limited to three 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, but must at a minimum include the Applicant, PhD Supervisor and the Host Supervisor.

Host research facility information and travel dates

Research site (e.g. CERN)
Research location (e.g. Geneva, Switzerland)
Describe the proposed travel plan for which funding is being requested. Explain the travel plan, including duration of travel, and if multiple shorter trips are being proposed, the number of trips, duration of each trip, total duration of travel requested (in months) and rationale for the travel pattern. Specifics about the expected travel dates can be recorded below.

Application overview

Completed applications must include:

- ☐ Completed and signed application
- ☐ CV
- ☐ Transcripts from all attended universities (certified photocopies permitted)
- ☐ Letter of support from current (PhD) supervisor
- ☐ Letter of support from host supervisor

Letter of support can be sent to neuro@weston.ca

Applications must plan to begin to travel no later than September 30th, 2019.

1. Keywords to describe the proposed work:

Institute definitions:

Neurodegenerative diseases of aging:

- Alzheimer's disease

- Frontotemporal dementia
- Mild cognitive impairment
- Parkinson's disease
- Progressive supranuclear palsy
- Dementia with Lewy bodies
- Multiple system atrophy
- Vascular contributions to the above
- Prodromes to the above

- **Translational research**: Applied research towards developing therapeutics for the prevention and/or treatment of human disease. Basic/discovery research, including but not limited to understanding disease mechanisms and discovering genes implicated in disease, is not in scope.
- **Therapeutic**: Pharmacological approaches (including small molecules, biologics, cell therapies and vaccines, including drug repositioning and repurposing), medical devices, surgical interventions, 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.
- **Tool:** An item that accelerates translational development of therapeutics, e.g., animal model, imaging techniques or reagents, biomarkers, and diagnostics.
  - Tools must have direct impact on the translational development of therapeutics.
  - Any value the tools contribute to basic research will not be taken into consideration.
  - Projects covering only the discovery/identification of a tool are out of scope.
  - For biomarkers:
    - Biomarkers must be being developed for human disease diagnosis, prognosis, for patient stratification to clinical trials or to predict response to therapies (surrogate for a clinical endpoint).
    - An identified biomarker is defined by the Institute as one that meets the following 4 conditions:
      1. Specific item(s) or signature to be measured can be defined;
      2. In what it will be detected (e.g., which tissue/fluid), using what assay, and for what disease, can be clearly stated;
      3. Specific item(s) (or signature) to be measured has been shown to be detectable in humans or human-derived samples/data in the tissue/fluid to be tested;
      4. Compelling data exists to justify moving to validation (as defined by the Institute).
    - Biomarker validation is defined by the Institute as:
      - Testing a previously identified biomarker in a sufficient number of appropriate, comparable, well-characterized human subjects/samples/data to determine whether it is a sensitive and/or accurate biomarker.
  - For cognitive assessment tools,
    - If developing a cognitive assessment tool or clinical assessment instrument, the tool must be being tested in patients with a relevant disease. Requires discussion of why the new assessment would be better than existing ones.

2. What type of tool or therapeutic 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
- ☐ 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:*

If you selected 'biomarker' above, what is the primary purpose of the biomarker?
- ☐ Diagnostic – determine whether patients have a particular disease or disease subset
- ☐ Prognostic – indicate future clinical progression
- ☐ Predictive, for patient stratification to clinical trials – identify patients likely to respond (favourably or unfavourably) to a specific treatment
- ☐ Response to therapy – indicate that the biological response to a therapeutic intervention is associated with clinical benefit (i.e., surrogate for a clinical end point)

3. If a tool is being developed, please specify the type of tool being proposed in the project. If the proposed tool is a biomarker, please provide one sentence to answer the following question, being as specific as possible: What biomarker in what tissue/fluid/location are you measuring, using what technique, for what purpose, in which disease? 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 phase(s) of development does the project cover?
(Please select only those that apply. There is no benefit to selecting more phases than fewer phases.)

- ☐ Target validation
- ☐ Assay development
- ☐ Screening and hits to leads
- ☐ Lead optimization
- ☐ Safety and toxicity in animals
- ☐ Efficacy in animals
- ☐ Phase I clinical trial
- ☐ Phase II clinical trial
- ☐ None
- ☐ Other *Please specify:*

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 than fewer diseases.)

☐ Alzheimer's disease
☐ Frontotemporal dementia
☐ Dementia with Lewy bodies
☐ Multiple system atrophy
☐ Parkinson's disease
☐ Progressive supranuclear palsy

☐ Vascular contributions to the listed diseases (not stroke-mediated vascular disease)
☐ Prodromes to the listed diseases (please also check the disease(s) to which your condition is a prodrome)

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 direct 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 as indicated above?
(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.)

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

Project information

1. **Central hypothesis, goals and specific aims of the project that will be completed abroad:** (maximum 200 words).

2. **Background and significance:** Why is it important that the proposed work be carried out? Please evaluate existing knowledge and identify the gaps that your project is intended to fill. Explain the research focus of the lab you will join and how your research will fit within it. How will your research impact the field of neurodegenerative diseases of aging? (maximum 300 words).

3. **Experimental approach:** Outline how the proposed work will be carried out and interpreted, including milestones. Please do not include background information (e.g. pathology, etiology or incidence/prevalence) of neurodegenerative diseases of aging. (maximum 600 words).

4. **Explain how the research project to be conducted abroad fits into your overall PhD thesis:** How will travelling to your world-class host lab contribute to your research in ways that staying in Canada will not (e.g., what skills will you acquire and bring back to Canada, what resources are available elsewhere that are not available here, how will your home lab benefit from this travel)? (maximum 400 words)

5. **Personal statement:** How do you plan to become a future leader in translational research for neurodegenerative diseases of aging? Provide evidence of your leadership skills, both within and outside the lab. *(maximum 500 words)*

6. **Career goals:** Describe your long-term career path. How will this fellowship advance your career? How do you hope to contribute to the Canadian neuroscience field in the future? *(maximum 500 words)*

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

Preliminary data: (A maximum of 1 page of preliminary data that best supports the application can be uploaded as a PDF, e.g., figures or tables.)

Section 3: Attachments

1. **Applicant CV:** maximum of 5 pages
2. **Transcripts from all attended universities (certified photocopies permitted)**
3. **Letters of support -** *Please have your referees submit their letters of reference directly to the Institute by email at neuro@weston.ca*
    a. **From current (PhD) supervisor**
    b. **From host supervisor**
4. **Signature Page**

Applicant/PhD Supervisor/Host Supervisor Signatures

Please ensure the necessary parties sign this page. "Per" signatures cannot be accepted. Signatures can be submitted on separate pages.

This application may be executed by the parties in counterparts and may be delivered in electronic format, with all counterparts and electronic transmissions being as effective as a manually executed copy and together will constitute one and the same application.

I declare that to the best of my knowledge the statements and other information contained in this application are truthful, complete, and accurate. I further understand that an incomplete application will not be reviewed.

Applicant:

Signature	Print Name	Date
_____	_____	_____

PhD supervisor:

Signature	Print Name	Date
_____	_____	_____

Home institution graduate coordinator

Signature	Print Name	Date
_____	_____	_____

Host supervisor:

Signature	Print Name	Date
_____	_____	_____

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MILESTONES

Project start date: (should correspond to the departure date of the first leg) - Month, Day, Year	**Project end date:** (should correspond to the return date of the last leg) **-** Month, Day, Year

Aim	List of milestones to be completed	Proposed completion date or leg of trip planned