

LETTER OF INTENT Early Phase Clinical Trials: Canada

Applications are being accepted on a rolling basis. **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 online grants management system <u>http://westonbraininstitute.ca/early-phase-clinical-trials-canada/</u>

Application Number:

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:	Principal Applicant	%
	First Name:	Position Title:	Phone:	Co-Applicant	
				Collaborator	
	Last Name:	Other Affiliations/ Position Titles:	Email:		
2.	Salutation:	Primary Organization:	Address:	Principal Applicant	%
	First Name:	Position Title:	Phone:	Co-Applicant	
	Last Name:	Other Affiliations/ Position Titles:	Email:	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 its successful execution.



Continuing for 2020:

We are expanding the scope of the Early Phase Clinical Trials program to include clinical trial projects investigating complementary approaches (e.g., diet, physical activity, sleep, nutritional supplements, speech therapy, cognitive therapy, music therapy, social interaction), if these applications meet our other scope criteria and have supportive evidence/justification (from published literature or unpublished data) to warrant further investigation.

The following option has been removed from the program details, however if this kind of funding is desired please contact the Institute: "If the funded project has the potential for significant commercial success, in the grant agreement, the Institute may request, upon significant commercial success, repayment of grant funds to be used for further research funding".

Institute definitions

A full list of our definitions is available on our website.

Neurodegenerative diseases of aging:

- 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.

Translational research:

Applied research towards developing therapeutics for the prevention and/or treatment of human disease. For example, for small molecule drug development, this includes target validation to Phase II clinical trials. Basic/discovery research, including but not limited to understanding disease mechanisms and discovering genes implicated in disease, is not in scope.

Therapeutics:

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. Therapeutics can be for symptomatic relief, disease modification, or prevention.



Complementary approaches such as exercise, acupuncture, music, dietary and nutritional supplements are not considered therapeutics. Identification of novel therapeutics is in scope (e.g., high throughput compound screens); however, identification of novel therapeutic targets, including genes implicated in disease, is not in scope.

Clinical trials:

The Institute defines a clinical trial to be research in which one or more human subjects are prospectively assigned to one or more interventions to evaluate the effects of those interventions on health-related biomedical or behavioral outcomes. A clinical trial sub-study is defined by the Institute to be a study investigating a question not addressed by the main trial, and which may involve obtaining additional measurements and data collection from a sub-group of all participants from the main trial.

Tool:

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.

Notes about complementary approaches

- Based on the success of the 2018 pilot allowing interventions of diet, physical activity, sleep and nutritional supplements, other kinds of "complementary" or "lifestyle" interventions are now eligible.
- This includes but is not limited to speech therapy, cognitive therapy, music therapy, and social interaction.
- Projects are eligible for funding through the Rapid Response, Transformational Research, and Early Phase Clinical Trials programs. Applications on these topics are eligible if they meet our disease and project scope criteria above and the following criteria:
 - Includes specific supportive evidence/rationale (published literature or unpublished data) to justify further investigation.
 - Similar experimental design is used to test the approach as would be implemented to test therapeutics, including appropriate control groups.
 - Any interventional trials should address, as best as possible, the potential confound of placebo effect.
 - Measures outcomes relevant to neurodegenerative diseases of aging (as defined by the Institute).
 - Interventions are being investigated in relevant human cohorts and/or appropriate disease models (e.g., cell culture, *in silico*, or animals).



 Has direct impact on accelerating the development of treatments for neurodegenerative diseases of aging. Treatments can be for disease modification, symptomatic relief, or prevention.

Application Overview

1. Keywords to	describe the	proposed work:
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2. What type of tool, therapeutic or complementary approach is being developed as the primary goal of the project?

(Please select only one tool, therapeutic or complementary approach that is being **developed** as the primary goal of the project.)

Tools	Therapeutic	Complementary approaches
🗆 Biomarker	□ Biologic	□ Sleep intervention
Cell line	□ Cell therapy	Exercise intervention
Clinical assessment	Electrical brain stimulation	Diet intervention
instruments	Magnetic brain stimulation	Nutritional supplement
Diagnostics	Medical device	Other complementary
Imaging technique or	Small molecule	approaches
reagent	Surgical intervention	
□ New method of drug	Passive immunotherapy	
delivery	Active immunotherapy	
□ Probe	□ Other <i>Please specify:</i>	
Other Please specify:		

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?

3. What clinical trial phase(s) of development does the project cover? Please explain your choice in 1-2 sentences.

(Select only those that apply.)

Phase I
Phase IIa
Other Please specify:



Explanation:

4. 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.)

□ Alzheimer's disease

Frontotemporal dementia

□ Multiple system atrophy

□ Parkinson's disease Dementia with Lewy bodies □ Progressive supranuclear palsy □ Vascular contributions to the listed diseases (not strokemediated vascular disease) □ Prodromes to the listed diseases (please also check the disease(s) to which your condition is a prodrome)

5. Relevance of the proposed work to the Institute's mandate: using the Institute's definitions, explain how the primary tool, therapeutic, or complementary approach 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 an immediate impact on accelerating translational research on therapeutics. (maximum 200 words.)

6. What type of tool(s), therapeutic(s), or complementary approach(es) is being developed aside from the primary goal of the project?

(Please select only the tool(s), therapeutic(s) or complementary approach(es) that are being developed as part of the project; do not select items that are being used as part of the project. There is no benefit to selecting more items than fewer items. Select "None" if there are no tool(s), therapeutic(s), or complementary approaches being developed aside from the primary goal of the project.)

Tools

- Animal model
- □ Assay/screen
- □ Biomarker
- Cell line
- □ Clinical assessment instruments
- □ Diagnostics
- □ Imaging technique or reagent
- □ New method of drug delivery
- □ Probe
- □ Other *Please specify:*
- □ None

- Therapeutic
- □ Biologic
- □ Cell therapy
 - □ Electrical brain stimulation
 - □ Magnetic brain stimulation
 - □ Medical device
- □ Small molecule
- □ Surgical intervention
- □ Passive immunotherapy
- □ Active immunotherapy
- □ Other *Please specify*:
- □ None

Complementary approaches

- □ Sleep intervention
- Exercise intervention
- □ Diet intervention
- □ Nutritional supplement
- □ Other complementary
- approaches
- □ None



7. 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. (<i>This information will not be used to assess the application</i>).	□ Yes □ No	Please specify:
8. Have you applied to other funding agencies with the same proposed work?(This information will not be used to assess the application)	□ Yes □ No	Please specify:
9. Is this your first time applying for a neuroscience grant from the Weston	🗆 Yes	
Brain Institute? (This information will not be used to assess the application)	□ No	
10 . Is this your first application for a research grant specifically in the area of	□ Yes	
neurodegenerative diseases of aging? (This information will not be used to assess the application)	□ No	

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

1. Central hypothesis, goals and specific aims: (maximum 300 words)

2. Specific properties of the therapeutic or intervention: Please provide the rationale for testing in humans, selectivity/specificity and potency of the therapeutic or intervention, target engagement, toxicity and safety data (including tolerability and any contraindications), PK/PD data, blood-brain barrier penetration (for CNS targets), latest stage of development, and any information on repurposing or repositioning. For a biologic, please also indicate the method of manufacture (*maximum 400 words*). <u>Supplemental material for PK/PD data can be uploaded as a PDF as part of preliminary data (see question 6 below) to a maximum of 1 page.</u>

3. Experimental approach: Please include details about the trial design including primary, key secondary, and key exploratory objectives, measures, and hypotheses; the nature of the intervention (e.g. dose and rationale for same, formulation, frequency and route of administration), sample size and preliminary justification for same, sample characteristics (exclusion/inclusion criteria), appropriate controls, pertinent regulatory considerations, evidence for adequate protection and safety monitoring, performance sites, and leadership structure. (*maximum 800 words*).

4. Development plan and future objectives: Please describe the development timeline for the proposed trial including go/no-go criteria for making decisions at key steps or milestones in the study. Please include applications for Health Canada and other required approvals within the development timeline if not already obtained. Please include a plan for recruitment of research participants and evidence of its feasibility. How will the results from this study support the next stage of clinical trial? Please specify additional funding sources that will be pursued. (maximum 300 words)

5. Team and Environment: Please provide evidence that the team has the appropriate training, experience, and sufficient access to all the resources needed to successfully carry out the trial within the proposed timelines. Resources to consider include but are not limited to, access to patients for recruitment, infrastructure for data management, preclinical and clinical expertise, and bio-statistical support. (maximum 300 words)

6. Preliminary data: Preliminary data that best supports the application should be uploaded as a PDF (maximum 2 pages, including up to 1 page for supplementary material for PK/PD)

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