Competition: 2022 - Winter

Version: 4.0

Date: January 10, 2022

1.0 BrainsCAN

Western University's BrainsCAN initiative received a $66 million investment from Government of Canada's Canada First Research Excellence Fund (CFREF), providing a significant boost to ongoing research in cognitive neuroscience and imaging. These funds were awarded to enable researchers at Western University, along with their national and international academic and commercial partners, to conduct cognitive neuroscience research, to seek answers to fundamental questions regarding how we learn, think, move and communicate. The CFREF program aims to help Canadian postsecondary institutions excel globally in research areas that create long-term economic advantages for Canada. BrainsCAN was competitively selected for funding through this program for seven years starting in September 2016. The BrainsCAN initiative will accelerate Canada's ability to deliver effective solutions to the challenge of maintaining optimal brain function across the lifespan.

2.0 BrainsCAN Computational Graduate Studentship Program

One of the key goals of the BrainsCAN Computational Core is to train the next generation of scientists with the analytical skills necessary for understanding the neural computations that support brain function. Funds have been secured from the Computational Core to support graduate students who do research at the intersection of neuroscience and computation. The BrainsCAN Computational Graduate Studentship program has been developed to attract the world's most promising graduate students to Western University. The program supports graduate (Masters and PhD) students proposing research projects in the computational neurosciences.

2.1 Important Dates

It is strongly recommended that all potential applicants review Western's Graduate School Admission procedures and academic calendar prior to preparing their application to this program

- o   Application deadline: **February 1, 2022**
- o   Expected results: **April 2022**

3.0 Funding Level and Term

3.1 Masters Funding Level and Term

The Masters Studentship stream will ensure a minimum stipend of $25,000 with the BrainsCAN Computational Core contributing $20,000 and an additional $5,000 being contributed by the supervisor and/or faculty (i.e WGRS). If a successful applicant receives additional external funding of at least $15,000 (i.e. CGS-M, or OGS), their annual compensation will increase to $30,000 (i.e. $10K BrainsCAN, $15K External award and $5K supervisor/faculty) for the duration of the external award.

The term of the Masters Studentship is a maximum of 2 years, provided the awardee is pursuing an eligible research project and the CFREF funding term allows. Please note the BrainsCAN CFREF funding ends in 2023 and could impact studentship term length.

3.2 <u>PhD Funding Level and Term</u>

The PhD Studentship stream will ensure a minimum stipend of $35,000 with the BrainsCAN Computational Core contributing $30,000 and the supervisor contributing $5,000. The funding commitment from the Computational Core and the supervising faculty member are independent of the University or departmental contributions. If a successful applicant receives additional external funding of at least $15,000 (i.e. CGS-D, or OGS), their annual compensation will increase to $40,000 (i.e. $20K BrainsCAN, $15K External award and $5K supervisor) for the duration of the external award.

The term of the Doctoral Studentship is a maximum of 2 years, provided the awardee is pursuing an eligible research project and the CFREF funding term allows. Please note the BrainsCAN CFREF funding ends in 2023 and could impact studentship term length.

4.0 Applicant Eligibility

The applicants must be intending to enroll in a **Masters or Doctoral program** at Western University. Internal applicants currently enrolled in a Master's program can apply for the PhD studentship if they are planning to transfer to a PhD prior to September 2022. Applicants currently enrolled in a PhD program at Western are not eligible.

5.0 Research Proposal Eligibility

The research proposal must be relevant to the aims of BrainsCAN as elaborated in the BrainsCAN Research Alignment/Steering Document and the Computational Core as elaborated [here](). The innovative nature of the proposal will be evaluated and candidates are **required to propose projects that will link two or more labs**.

6.0 Proposed Supervisors Guidelines

- Working with multiple supervisors across multiple labs is required. The proposed supervisors must hold eligible academic appointments (full-time tenured or tenure-track faculty at the Assistant, Associate, or Full Professor level) with a significant research component at Western University.
- The combined expertise of the proposed supervisors must cover the spectrum of computation and neuroscience.
- The proposed supervisors are required to provide a minimum of $5,000 of stipend support.
- A supervisor can only support 1 application as a principal supervisor AND 2 applications as a co-supervisor per round.
- Each supervisor must provide *a Biosketch in the NIH format* *https://grants.nih.gov/grants/forms/biosketch.htm*.
- ***A single letter of support must be submitted and signed jointly by all supervisors.*** The letter of support should detail the space, facilities and personnel support available to the applicant, and justify the novelty and innovative nature of the project. Each letter should also include a

statement of commitment to the professional development of the applicant as well as describe how Equity, Diversity and Inclusion (EDI) principles are embedded in their research environment.

7.0 Application Process

7.1 <u>Application Forms</u>
Detailed instructions for applicants are provided in the application form found on the program website.

    7.1.1 <u>Official Transcripts</u>
Applicants are required to submit as a PDF document up-to-date official transcripts of their complete academic record (this includes all undergraduate and graduate studies, completed or ongoing).

- Transcripts printed from the applicant's personal institution account are not accepted.
- Up-to-date official transcripts are defined as transcripts issued by the Registrar's Office and dated or issued in the last fall term (if currently registered) or after the last term completed (if not currently registered). Opening the envelope to scan the transcript will not render it unofficial for this purpose.
- Certified true copies of official transcripts from the institution are accepted. A certified true copy is defined as a copy of the original document (or of the original translated document if official transcript is not in either English or French).
- Applicants who are or were registered at an institution that does not provide transcripts must submit, in lieu of a transcript, a letter bearing the official institution seal/stamp or a letter signed by the Dean of Graduate Studies confirming the applicant's program of study, the applicant's registration status, the date of initial registration, the degree obtained or sought and the fact that the institution does not provide transcripts.

7.2 <u>Submission to BrainsCAN Computational Core</u>
The completed application package, including all letters, must be received at mmur@uwo.ca by 11:59 pm (Eastern time) on the day of deadline.

7.3 <u>Equity and Diversity Survey</u>
Please complete and submit the Self-Identification Survey found on the BrainsCAN website. The personal information collected by this survey will be used for educational, administrative and statistical purposes only and will be stored by the BrainsCAN Administration Staff to maintain confidentiality. The form is completely voluntary and will not be used in the evaluation of the application. The survey can be sent separately to the application to Fay Harrison (BrainsCAN Executive Director and Equity & Diversity Co-Chair; fay.harrison@uwo.ca)

7.4 <u>Troubleshooting</u>

During the application development phase, prospective applicants are encouraged to contact the BrainsCAN team with any questions. *See section 10.0 below for contact details.*

8.0 Review Process

8.1 <u>Review Criteria</u>

Applications will be evaluated according to the following criteria. The first two criteria are assessed as a binary, yes/no, sufficient/insufficient decision. Note that failure to pass either of these two criteria will result in an unsuccessful application.

8.1.1. Alignment with BrainsCAN and Computational Core mandates

- The proposed research adequately aligns with BrainsCAN and Computational Core aims (yes/no)

8.1.2 Research Training Environment

- Quality of the research training environment will be assessed on a sufficient/insufficient basis.
  - o The space, facilities and personnel support that is available to the applicant is appropriate for the proposed research goals.
  - o An interdisciplinary research environment that engages two or more labs.
  - o The proposed advisor(s) demonstrates a commitment to the development of the applicant's research project (funding, facilities, equipment, etc.) and professional development.
  - o Host lab demonstrates a track record of excellent research impact appropriate for the career level of the Principal Investigator. Criteria for recognition of work can significantly vary by discipline, but might include publications (quantity, quality and citations), patents, record of external funding, record of training of HQP, and indices of ability to communicate research effectively.

8.1.3. Achievements and Activities of Candidate (Overall weight - 40%)

- Academic Performance (25%):
  - o Undergraduate academic transcripts and, if available, graduate transcripts.
  - o Considerations:
    - Type of program and courses pursued
    - Course load
    - Grades obtained
    - Relative standing (if available)
    - Overall average

- Trend (give credit for a steadily improving or consistently good performance)
- Publication Activity (10%):
  - Articles and other publications produced by the candidate. Consider presentations in the assessment of other research activity (see below).
  - Publication activity of the candidate relative to expectations of someone with their academic experience. This includes articles published in peer-reviewed journals, or accepted for publication, as well as pre-prints or other non-peer reviewed outlets (i.e. arXiv, bioRxiv).
  - Breadth of science covered and the frequency of publication.
  - Bear in mind that publication activity patterns vary among disciplines.
- Other Research Activity (5%):
  - Presentations, research prizes and other indicators of the candidate's research productivity.
  - Research activity of the candidate relative to expectations for someone with their academic experience.
  - Breadth of science covered, size and importance of meetings involved, frequency of conference presentations and research honors and awards.

8.1.4. Research Potential (Overall weight - 40%)

- Research potential of candidate within the computational neurosciences (20%)
  - Relevance of work experience and academic training to the field of computational neuroscience in general, and to the proposed research in particular.
  - Initiative and autonomy of the candidate.
  - Candidate's ability to think critically and creatively.
  - Candidate's ability to develop and/or perform complex analyses.
  - Candidate's ability to communicate results.
- Proposed research (20%)
  - Significance of proposed research to the field of computational neuroscience.
  - Clarity and logic of the proposed project.
  - Quality and feasibility of the proposed project.
  - Can the candidate complete the proposed research, given their education, experience and interests?
- Reviewers will be encouraged to use the referees' assessments in evaluating research potential, and to consider the length and nature of relationship between applicant and referee.

8.1.5. Research/Training Plan and Environment (Overall weight – 20%)

- Clarity and logic of the candidate's plans for a research career within the computational neurosciences and the relevance of the proposed training.
- Evaluate how the training the candidate expects to acquire will contribute to their productivity and to their research goals, and how this award will enable them to establish themselves as independent investigators.
- Evaluate the alignment between the applicant's research skills and the training opportunities expected to be provided by the proposed host lab(s).

9.0 Post-award Processes

9.1 Award Acceptance:

The award must be accepted within 15 working days of the date of offer or the award may be cancelled and potentially offered to the next fundable applicant.

9.2 Funding Start Date

Successful applicants are expected to begin the award at the earliest possible date as determined by Western's Academic calendar, traditionally the following September. For Internal MSc to PhD Transfers, the candidate must successfully complete the transfer process prior to the September following the application deadline. All awards are conditional on the applicant being accepted to the Western University graduate program affiliated with this proposed supervisor's Faculty/Department. For foreign applicants coming to Canada, awards may only begin after proof of an entry visa into Canada is provided.

9.3 Recognition and Reporting

All BrainsCAN Computational Graduate Students should acknowledge the support of CFREF and BrainsCAN in all related presentations and publications. Successful applicants will be required to complete progress reports outlining how this grant enriched their research, contributed to transforming their research field, and developed their career. These reports will be coordinated through the BrainsCAN Project Manager.

9.4 Frequency of applications

An applicant can submit a single application per program call (competition). Provided the applicant meets the eligibility requirements, there is no limit to the number of competitions to which an applicant can submit an application.

10.0 Contact information

The competition is administered by BrainsCAN's administrative team (brainscan@uwo.ca). For specific questions please contact Ryan Salewski, Project Manager (ext: 86801; ryan.salewski@uwo.ca) or Marieke Mur, Comp Core HQP Manager (ext: 85058; mmur@uwo.ca)