**McGill** 



#### **Getting Your Application Ready**

#### Organized by the HBHL Trainee Committee February 15<sup>th</sup>, 2023

McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous peoples whose presence marks this territory on which peoples of the world now gather.

#### Schedule

**6 pm:** Introductory Remarks

**6:05 pm:** Award Criteria and Components

6:45 pm: Q & A

7:00 pm: Finished



#### Who am I?

- HBHL Trainee EDI Officer
- Graduate of St. FX Applied Forensic Psychology
- First Year MSc student of McGill's Integrated Program in Neuroscience
- I did undergraduate summer research, and it changed my life + career
- Spearhead of HBHL's USRI





### **An Overview of HBHL**

**Healthy Brains, Healthy Lives** is an interdisciplinary program, built on McGill's global leadership in interdisciplinary neuroscience.

<u>HBHL vision</u> is to reduce the human and socio-economic burden of psychiatric and neurological illnesses and improve the mental health, quality of life and productivity of Canadians and people around the world.

#### HBHL is supported by:



Fonds de recherche – Nature et technologies Fonds de recherche – Santé Fonds de recherche – Société et culture

Ministère de l'Économie et de l'Innovation Québec 🍻 🕸





#### An Overview of HBHL

#### HBHL has four Research Themes:

- Neuroinformatics and Computational Modelling
- 2 Mechanistic Models of Neurodegenerative Disorders
- 3 Applied Cognitive Neuroscience of Brain Plasticity
  - Population Neuroscience and Brain Health



#### **HBHL Themes**





#### Undergraduate Summer Research Fellowship

#### 2024

- 20 undergraduate students
- \$10, 000 per award
- Applications due March 3, 2024
- No GPA requirement
- Full and part-time undergraduate McGill students
- No previous research experience
- Non-graduating



### Timeline

Monday, February 5, 2024	Program launch date
Thursday, February 15, 2024 from 6:00 to 7:00 p.m. EST	<u>"Getting Your Application Ready" Workshop</u> (optional, online workshop led by HBHL Trainee Committee members)
Sunday, March 3, 2024, 11:59 p.m. EST	Due date for online submission of the full application package
March 2024	Applications are reviewed and the HBHL Trainee Committee makes selections
Mid-April 2024	Results announced
May 2024	Internships begin
August 2024	Internships end



#### Requirements

#### Your application MUST include

CIHR Certificate

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- Supervisor Agreement Form
- 3 Summary of Proposed Research
  - Impact Statement



## **1) CIHR Certificate**

- Must complete a module from <u>CIHR's Online</u> <u>Training Modules on Integrating Sex and Gender in</u> <u>Health Research</u>
- Should take 30-45 minutes
- Has short quizzes to verify knowledge (can retake)
- Start now because you'll definitely learn something that will strengthen your application
- Save a copy of the certificate for submission









	Memember usemame
CIHR Institute of Gender and Health Institut de la santé des	
femmes et des hommes	
Home About Contact Us	
	Is this your first time here?
	For full access to courses you'll need to take a minute to create a new account for yourself on this web site. Each of the individual courses may also have a one-time "enrolment key", which you won't need until later. Here are the steps: 1. Fill out the New Account form with your details.
	2. An email will be immediately sent to your email address.
	3. Read your email, and click on the web link it contains.
	4. Your account will be confirmed and you will be logged in.
	5. Now, select the course you want to participate in.
	6. If you are prompted for an "enrolment key" - use the one that your teacher has
	given you. This will "enrol" you in the course.
	7. You can now access the full course. From now on you will only need to enter
	your personal username and password (in the form on this page) to log in and
	access any course you have enrolled in.
	Create new account





This is to certify that

#### Ethan Draper

has successfully completed the CIHR Institute of Gender and Health Core Competency Module for Sex and Gender in Biomedical Research.



Angela Kaida, PhD Scientific Director CIHR Institute of Gender and Health



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## 2) Supervisor Agreement Form

- Supervisor must have signed the form
  - They will confirm your eligibility
  - They will include the name of a graduate student who will serve as a mentor to you
  - They will be asked about the theme of research they do (direct them to our site if needed)
- Start now because PIs might take a while to get back to you



### 3) Proposed Research Summary





HEALTHY BRAINS HEALTHY LIVES

# Literature

- Give the background information the reviewer needs to understand your research questions
- Summarize the state of the field (what has been done, what is the general consensus, what is still a debated topic)

- 1. Use a recent meta-analysis
- 2. Make sure you describe any disorders/concepts that are pertinent





#### Rationale

- Describe the gap, problem, or challenge your research will tackle
- Explain why addressing this is important
- Explain why your work specifically addresses this problem

- 1. Your reviewers will have multiple applications; help them out by having this very explicitly
- 2. Make sure it's evidence-based (mortality rate, socioeconomic burden, quality of life, etc.)
- 3. Think of this as your sales pitch



# **Hypothesis and Aims**

- Specific and testable hypotheses
- Clear aims that should explicitly answer your hypothesis
- Should have 1 or 2 aims per hypothesis

- 1. Don't overcomplicate your hypotheses
- 2. Don't confuse a research question for your hypothesis





### Hypothesis Example

- If intraoperative magnetic resonance imaging (iMRI) is used during glioma surgery, then (i) surgeons can resect a greater percentage of the tumour, and (ii) operating time can be reduced.
- If individuals with arthritis engage in aerobic exercise for 30-60 minutes three times a week, their quality of life will improve and their scores of subclinical depression will be reduced.



#### Aim Example

- Develop and validate a motion correction tool to improve pediatric magnetic resonance imaging (MRI).
- Characterize the relationship between severity and spatial distribution in multiple sclerosis (MS) lesions.



#### Methods

- Describe how you will be testing your hypothesis
- Include: tool, participant recruitment, scores, statistical tests and software

- 1. Be as detailed as possible
- 2. Ask a friend to go over it and see if they have any questions and if they think there's any information they would need to do the same experiment
- 3. Cite, cite, cite (especially if you are low on space and will be doing a complex analysis or preprocessing pipeline that has been well described elsewhere)



#### **EDI and SGBA**

- Equity, diversity, and inclusion: recruitment, accommodations for human participants
- Sex and gender based analysis: statistical tests, equal number of participants
- Explain how you will be analyzing SGBA
- Explain why it's important (e.g., disease overrepresented in one sex)

- Do the CIHR module ASAP because it will really give you everything you could need to think about
- Can provide evidence-based justification if it's not relevant for your topic, but it is for 99%



# Quality

- Verb tense
- Spelling/grammar
- Technical terms explained
- Acronyms explained
- Easy to follow (ideas should progress in a logical way)
- APA 7<sup>th</sup> reference





#### 4) Impact Statement





HEALTHY BRAINS HEALTHY LIVES

### Impact of Award

- Describe what your future goals are and how this will impact them (long or short term)
- Describe the intended outcomes of this experience
- If you would like, describe barriers that have impacted you

- 1. Be as detailed as possible
- 2. Be creative, and think about the components of your experience that will be the most meaningful to you





### Vague

#### VS.

- Project: Anxiety symptoms in ADHD
- Goal: Healthcare
- Personal Skill: Help people
- Technical Skill: How to do research

## Specific

- Project: Anxiety symptoms in ADHD
- Goal: Clinical Psychologist
- Personal Skill: Clinical interviewing
- Technical Skill: Use R software to run statistical tests and generate figures





- Verb tense
- Spelling/grammar
- Acronyms explained
- Easy to follow (ideas should progress in a logical way)





## **Share Your Story**

- Narrative
- Contextualize this experience with you
- Feel free to discuss personal goals
- We don't expect you to have your life figured out, but paint us a picture of how this experience fits into your values and your goals



#### **General Tips**

- Proofread
- Don't wait until the last minute to apply
- Get a friend to read it over
- Outline first
- Multiple drafts
- Give yourself a day after you think you've finished your final draft where you don't look at any part of your application, and then look at it with fresh eyes the next day for a final read
- Change font/colour of text when editing





#### **Q & A**

Questions about how to get started? Need resources for APA 7<sup>th</sup>? Questions about your eligibility? Need help finding a supervisor?



