

# Regan Campbell

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2350 Health Sciences Mall, Life Sciences Institute  
University of British Columbia  
Vancouver, BC, Canada

## EDUCATION

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**MSc in Neuroscience** September 2022 – Present  
University of British Columbia, Cembrowski Laboratory

**BSc (Honours) with High Distinction** 2018 – 2022  
University of Toronto  
cGPA: 3.93/4.0  
Specialization: Neuroscience  
Minor: Applied Statistics  
Thesis in Neuroscience: The Role of the Dorsal Hippocampus in Timing Behaviour

## RESEARCH EXPERIENCE

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**MSc Student**, University of British Columbia 2022 – Present  
PI: Dr. Mark Cembrowski  
*Combining computational modeling of neuron biophysics and multi-photon calcium imaging to investigate cell-type specific dendritic computations.*

**Thesis Student**, University of Toronto Scarborough 2021 – 2022  
PI: Dr. Rutsuko Ito  
*Led a project examining the role of the rat dorsal hippocampus in temporal decision making via chemogenetics, behavioural testing, data modelling in MATLAB, statistical analyses in R, and immunohistochemistry.*

**Research Assistant**, University of Toronto 2021  
PI: Dr. Katherine Duncan  
*Administered study sessions via Prolific and tested R scripts for an online pilot memory study examining human memory reactivation and item recall precision.*

**Research Assistant**, University of Toronto Scarborough 2019 – 2021  
PI: Dr. Rutsuko Ito  
*Conducted operant and Pavlovian behavioural tests with rats examining (1) the involvement of the entorhinal cortex and ventral hippocampus in temporal duration memory and (2) the medial prefrontal cortex to hippocampus circuitry in cued approach-avoidance conflict.*

**Research Assistant**, University of Toronto 2019  
PI: Dr. Gillian Einstein  
*Scored neuropsychological assessments of cognition and memory to examine the impacts of ovarian removal on cognitive health.*

## HONORS AND AWARDS

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**Faculty of Medicine Graduate Award, University of British Columbia** (\$4000) 2022  
*Awarded to support students in the Graduate Program in Neuroscience.*

**CIHR Canada Graduate Scholarships – Master’s** (\$17500) 2022  
*Awarded by the Canadian Institutes of Health Research to provide “financial support to high-calibre scholars”.*

**Allen Institute Modeling Software Workshop Travel Award** (\$1000) 2022  
*Selected to attend with travel support based on previous research experience, qualifications, and proposed research project.*

**Best Poster Award – NeuroXChange Undergraduate Neuroscience Conference** 2022  
*Awarded at a Canada-wide undergraduate research conference.*

**University of Toronto Scarborough Dean’s List** 2018 – 2022  
*Awarded to students who have achieved a cumulative GPA of 3.5 or higher.*

**Budding Scholars Research Extension Award** (\$1500) 2020  
*A research award open to current budding scholars, aimed to support a research project with a faculty member. Awarded based on academic performance and research potential.*

**Budding Scholars Award** 2019  
*A program for aspiring professionals in the field of psychology or neuroscience. Acceptance is based on academic excellence in Psychology and drive to pursue research.*

**University of Toronto Entrance Scholarship** (\$2000) 2018  
*Awarded for achieving above a 92% average in high school at time of admission.*

## PUBLICATIONS

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1. Kinman, A.I., Erwin, S.R., Merryweather, D.N., **Campbell, R.E.**, Kraus, L., Sullivan, K.E., ... Cembrowski, M.S. (2023). Atypical excitatory neurons of the hippocampus represent novelty and toggle novelty seeking. *Science*, submitted.

## POSTER PRESENTATIONS

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1. **Campbell, R.E.**, Merryweather, D., Elder, M., Bristow, M., Kraus, L., Cembrowski, M.S. (2023). “Unique intrinsic properties shaping the cellular computations of a novel excitatory cell type in the subiculum”. Canadian Association for Neuroscience Meeting, Canada. *National*.

2. **Campbell, R.E.**, Cembrowski, M.S. (2023). “Cell type specific information processing in the subiculum: how morphology shapes computation”. Cellular and Physiological Sciences Departmental Research Retreat, UBC, Canada. *Institutional*.

3. **Campbell, R.E.**, Zhemeng, W., Çavdaroğlu, B., Ito, R. (2022). “The Role of the Dorsal Hippocampus in Timing in the Presence of Motivational Conflict”. NeuroXChange Undergraduate Neuroscience Conference, Canada. *National*. Awarded “best poster presentation”.

## **WORKSHOPS ATTENDED**

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**Allen Institute Modeling Software Workshop** 2022  
*Selected on the basis of experience and qualifications, supported by a travel award (\$1000).*

## **TEACHING EXPERIENCE**

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**Vice-President of Academic Affairs/Director of Scientific Outreach** 2020 – 2022  
SYNAPSE, University of Toronto - Scarborough  
*Curated and hosted exam review sessions for second- and third-year neuroscience courses.*

## **EXTRACURRICULAR ACTIVITIES & VOLUNTEERING**

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**Member – Women and Gender-diverse Mathematicians** 2023  
The University of British Columbia  
*Involved in organizing colloquia and lunches to provide resources, support, and networking opportunities for women and gender-diverse mathematicians.*

**Brain Bee Volunteer** 2023  
Vancouver Brain Bee  
*Assisted with participant sign-in, invigilated the written exam, and provided a lab tour with demos/explanations of equipment/experiments used.*

**Vice-President of Academic Affairs** 2021 – 2022  
SYNAPSE University of Toronto - Scarborough  
*Developed the Academic Affairs department, curated initiatives, and organized events to provide undergraduates with mentorship and academic development opportunities.*

**Director of Scientific Outreach** 2020 – 2021  
SYNAPSE, University of Toronto - Scarborough  
*Researched, critically evaluated, and summarized relevant and recent neuroscience research to present via social media posts and hosted academic panels.*

**Academic Study Group Executive** 2020  
Psychological Health Society, University of Toronto - Scarborough  
*Curated and hosted study groups for a third-year neuroscience course.*