

# **Curriculum Vitae**

Martin Bardhi

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## **University Education**

**University of Toronto, MD/PhD** | August 2025 – Present

PhD Program not yet decided

**University of Calgary, Bachelor of Science** | September 2021 – June 2025

Program: Major in Neuroscience (Honours), Minor in Chemistry

## **Research Experience**

**Honours Thesis** | September 2024 – June 2025

**Supervisor:** Dr. Adam Kirton

**Project:** Lesion Symptom Mapping of Motor Outcomes Following Perinatal Stroke

- Analyzed the relationship between stroke location and motor outcome impairments in children with perinatal stroke to better guide prognostication and potential therapeutics

**Summer Student Research** | May 2024 – August 2024

**Supervisors:** Dr. Keith Sharkey and Dr. Minh Dang Nguyen

**Project:** Treating Amyotrophic Lateral Sclerosis (ALS) from the Gut

- Maintained, treated, and collected tissue from transgenic mice and analyzed spinal cord to better understand the role of the gut-brain-axis in neurodegenerative disease

**Introduction to Research in Chemistry, lab-based course** | January 2024 – August 2024

**Supervisor:** Dr. Farideh Jalilehvand

**Project Title:** Synthesis of a Re(CO)<sub>3</sub> complex with a glycoconjugated ligand as a potential antitumor active compound

### **Contribution:**

- Conducted literature review to outline potential benefits of rhenium-based antitumor compounds, one of which was synthesized, purified and characterized
- Methodology included: size exclusion chromatography, ESI-MS, UV-VIS and NMR spectroscopy and elemental analysis

## **Summer Student Research | May - July 2023, May - August 2022**

**Supervisor:** Dr. Adam Kirton

**Project:** tDCS electrode placement optimization for children with perinatal stroke

- Modeled electrode placement for transcranial direct current stimulation in children with perinatal stroke, with the hope of optimizing future therapeutic applications
- Also assisted with a clinical trial being run in the lab, leading children in daily ‘summer camp’ activities, delivering tDCS therapy, and assisting with MRI scans

### **Publications:**

Maiani M, Lahey N, **Bardhi M**, Floer Garrido J, Hilderley A, Carlson HL, Kirton A. Visuo-perceptual Abilities in Children With Perinatal Arterial Ischemic Stroke and Associated White Matter Microstructure. *Journal of Child Neurology*. 2025;0(0). doi:10.1177/08830738251394438

**Bardhi M**, Zewdie ET, Kirton A, Carlson HL. Optimization Simulations of Transcranial Direct Current Stimulation Montages in Children With Perinatal Stroke. *Neuromodulation*. 2025 Jun 9:S1094-7159(25)00187-4. doi: 10.1016/j.neurom.2025.05.002. Epub ahead of print. PMID: 40492999.

Beraldi EJ, Lee S, Jiang Y, Rea IM, Phull R, Keenan CM, Stephens M, **Bardhi M**, Bankole O, Pfeffer G, Biernaskie J, McCoy KD, Elinav E, Sharkey KA, Nguyen MD. (2024). The gut microbiota is a determinant of sexual dimorphism in ALS-linked TDP43 mice. *bioRxiv*:2024.08.29.610355. (preprint – not yet peer reviewed)\*

### **Honours, Scholarships and Awards During University**

**Honours Enrolment and Dean’s List Standing (University of Calgary)** | 2021 - 2025

**Snyder Institute for Chronic Disease Best Oral Presentation Award** | August 2024

**Branch Out Neurological Foundation Undergraduate Grant** | March 2024

**Alberta Innovates Summer Research Studentship** | March 2024 (Declined\*)

**HackPrinceton Sustainability Track Award** | April 2023

- Awarded for project that best supports health and vitality of humans and the environment

**Alberta Innovates Summer Research Studentship** | March 2023

**Louise McKinney Post-secondary Scholarship (University of Calgary)** | September 2023

**Jason Lang Scholarship (University of Calgary)** | September 2022

**Alumni Association Jean Owen Scholarship (University of Calgary)** | September 2021

**Presidents Admission Scholarship (University of Calgary)** | September 2021

## **Extracurricular Activities:**

**Neuroscience Students Association (President) | September 2021 – June 2025**

- Led a student club that provides a platform for peer connection and professional development to foster student success
- As president, I oversaw all details from finances to advertisement and event management

**Run for Little Ones (Co-President) | April 2022 – June 2025**

- Led a student club that fundraises for the Alberta Children's Hospital Foundation
- Fundraisers include our staple annual run, as well as bake sales, bottle drives and raffles

**Mathison Centre Outreach Committee | September 2023 – June 2025**

- Local organization focused on improving mental health literacy and awareness
- On the committee, I would suggest and aid in planning and running events that were open to all citizens, where experts were invited to speak on mental health related issues

**Audio/Visual Tech Team Director, Bonavista Church | July 2020 – August 2025**

- Leading the tech team to ensure that weekly services are captured with high quality and streamed online using production quality A/V equipment and software

**Youth Group Leader, Bonavista Church | September 2023 – April 2025**

- Fostered a supportive and comfortable environment where children (aged 12-14 years old) could come and discuss religious concepts, share personal struggles
- Focused on developing character, critical thinking, and knowledge through discussion

**Lego-Robotics Coach, Westmount Charter School | September 2023 – April 2025**

**Regional Manager, EDU Beyond | July 2020 – February 2022**

## **Employment**

**Laboratory Technician, Westmount Charter School | September 2024 – July 2025**

**Coding Instructor, Juniotech Kids Academy | July 2019 – September 2024**

**Lifeguard and swim instructor, MNP Sports Centre | November 2021 – May 2022**

**Swim instructor (seasonal), McKenzie Lake Resident Association | August 2021**