

Earvin S. Tio

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EDUCATION

Doctor of Philosophy Sept. 2020 - present

University of Toronto | Toronto, Canada - Institute of Medical Science

- Collaborative Program in Neuroscience
- Supervised by Dr. Daniel Felsky, PhD

Awards

- Institute of Medical Science Open Fellowship Jan. 2024 - Aug. 2024
- Ontario Graduate Scholarship - Doctoral Sept. 2023 - Aug. 2024
- Alan Wu Poster Competition 2023
- School of Graduate Studies (SGS) Conference Grant 2022
- Ontario Graduate Scholarship - Master's Sept. 2021 - Aug. 2022
- Institute of Medical Science Entrance Scholarship Sept. 2020 - Aug. 2021

Bachelor of Applied Science Sept. 2015 - Aug. 2020

University of Waterloo | Waterloo, Canada - Systems Design Engineering

- Option in Artificial Intelligence
- Graduated with Distinction and Dean's Honours
- Cumulative GPA of 88%

Awards

- GM Canada Innovation Award 2020
- First in Class Engineering Scholarship 2019
- J.R. Coutts International Experience Award 2019
- University of Waterloo President's Scholarship 2015

École Polytechnique Fédérale de Lausanne Feb. 2019 - July 2019

School of Computer and Communication Sciences

- Academic semester abroad in Lausanne, Switzerland
- 29 ECTS credits with a GPA of 5.2 / 6

PUBLICATIONS

- Zhukovsky P, **Tio ES**, et al. Genetic influences on brain and cognitive health and their interactions with cardiovascular conditions and depression. *Nat Commun.* 2024;15(1):5207. Published 2024 Jun 18. doi:[10.1038/s41467-024-49430-7](https://doi.org/10.1038/s41467-024-49430-7)
- Kharaghani A, **Tio ES**, et al. Association of whole-person eigen-polygenic risk scores with Alzheimer's disease. *Hum Mol Genet.* Published online April 27, 2024. doi:[10.1093/hmg/ddae067](https://doi.org/10.1093/hmg/ddae067)

- Hsieh YC, Augur ZM, et al. Person-specific differences in ubiquitin-proteasome mediated proteostasis in human neurons. *Alzheimers Dement.* 2024;20(4):2952-2967. doi:[10.1002/alz.13680](https://doi.org/10.1002/alz.13680)
- Rybnicek J, Chen Y, et al. CHRNA5 Links chandelier cells to severity of amyloid pathology in aging and Alzheimer's disease. *Transl Psychiatry.* 2024;14(1):83. Published 2024 Feb 8. doi:[10.1038/s41398-024-02785-3](https://doi.org/10.1038/s41398-024-02785-3)
- **Tio ES**, Misztal MC, Felsky D. Evidence for the biopsychosocial model of suicide: a review of whole person modeling studies with machine learning. *Front Psychiatry.* 2024;14:1294666. Published 2024 Jan 11. doi:[10.3389/fpsy.2023.1294666](https://doi.org/10.3389/fpsy.2023.1294666)
- Misztal MC, **Tio ES**, et al. Interactions between genetic risk for 21 neurodevelopmental and psychiatric disorders and sport activity on youth mental health. *Psychiatry Res.* 2023;330:115550. doi:[10.1016/j.psychres.2023.115550](https://doi.org/10.1016/j.psychres.2023.115550) [*In-Press*]
- Higginbotham L, Carter EK, et al. Unbiased classification of the elderly human brain proteome resolves distinct clinical and pathophysiological subtypes of cognitive impairment. *Neurobiol Dis.* 2023;186:106286. doi:[10.1016/j.nbd.2023.106286](https://doi.org/10.1016/j.nbd.2023.106286)
- **Tio ES**, Hohman TJ, et al. Testing a Polygenic Risk Score for Morphological Microglial Activation in Alzheimer's Disease and Aging. *J Alzheimers Dis.* 2023;94(4):1549-1561. doi:[10.3233/JAD-230434](https://doi.org/10.3233/JAD-230434)
- Comitani F, Nash JO, et al. Diagnostic classification of childhood cancer using multiscale transcriptomics. *Nat Med.* 2023;29(3):656-666. doi:[10.1038/s41591-023-02221-x](https://doi.org/10.1038/s41591-023-02221-x)

PRE-PRINTS

- **Tio ES** & Felsky D. The interaction of polygenic risk for depression and age on white blood cell count. *MedRxiv.* doi:[10.1101/2022.11.20.22282570](https://doi.org/10.1101/2022.11.20.22282570)

SCIENTIFIC MEETINGS

20th European Symposium on Suicide and Suicidal Behaviour (ESSSB20)

Aug. 28-31, 2024; Rome, Italy. [*Oral Presentation*]

Centre for Addiction and Mental Health (CAMH) Trainee Seminar Series

Jan. 16, 2024; Toronto, ON, Canada. [*Oral Presentation*]

Temerty Faculty of Medicine (TFoM) Research Showcase

July 7, 2023; Toronto, ON, Canada. Access abstract [here](#). [*Oral Presentation*]

Society of Biological Psychiatry (SOBP) Annual Meeting

Apr. 27-29, 2023; San Diego, CA, United States. Access abstract [here](#). [*Poster*]

Apr. 28-30, 2022; New Orleans, LA, United States. Access abstract [here](#). [*Poster*]

Institute of Medical Science (IMS) Scientific Day

Apr. 24-25, 2023; Toronto, ON, Canada. [*Poster*; Alan Wu Competition Hon. Mention]

May 17, 2022; Toronto, ON, Canada. [*Panelist*; Artificial Intelligence in Medicine]
May 26, 2021; Virtual. Access abstract [here](#). [*Poster*]

Cold Spring Harbor Laboratory (CSHL) Biological Data Science Meeting

Nov. 9-12, 2022; Cold Spring Harbor, NY, United States. [*Poster*]

Krembil Centre for Neuroinformatics (KCNI) Open House

June 24, 2022; Toronto, ON, Canada. [*Oral Presentation*]

June 21, 2021; Virtual. [*Oral Presentation*]

American Society of Human Genetics (ASHG) Annual Meeting

Oct. 18-22, 2021; Virtual. Access abstract [here](#). [*Poster*]

Alzheimer's Association International Conference (AAIC)

July 26-30, 2021; Virtual. Access abstract [here](#). [*Poster*]

Collaborative Program in Neuroscience (CPIN) Research Day

June 30, 2021; Virtual. Access abstract [here](#). [*Oral Presentation*]

Department of Psychiatry Research Day (DPRD)

June 17, 2021; Virtual. [*Oral Presentation*]

TEACHING & MENTORSHIP

Neurodegenerative Disease Student Association

Sept. 2023 - present

University of Toronto

- Mentored 3 undergraduate students interested in graduate studies in neurodegeneration

Graduate Teaching Assistant

Sept. 2022 - present

University of Toronto | Institute of Medical Science

- Assisted with the delivery of the graduate level course *MSC1090 - Introduction to Computational Biostatistics with R*

Krembil Centre for Neuroinformatics

Sept. 2021 - present

Centre for Addiction and Mental Health

- KCNI Summer Academy 2021-2023 Teaching Assistant

Collaborative Program in Neuroscience

Sept. 2020 - present

University of Toronto

- Developed and delivered *Neural Networks and Artificial Brains* for NeuroSci101, a lecture series aimed at highschool students interested in neuroscience
- Mentored 3 undergraduate students interested in graduate studies in neuroscience

GradMinds - Graduate Student Mental Health Committee

Sept. 2020 - Sept. 2022

University of Toronto

- Founding member of the GradMinds Peer Support Initiative
- Mentored 8 graduate students in the capacity of a trained a peer supporter

COMMUNITY OUTREACH

Let's Talk Grad Wellness (LTGW)

Aug. 2021 - present

- Executive member of a student-ran, Graduate & Life Sciences Education (GLSE)-funded initiative focusing on graduate student wellness and student-supervisor relationships
- Proposed departmental improvements to the Institute of Medical Science (IMS) executives during the IMS Leadership Meeting; Sept. 16, 2022; Virtual.
- Spoke as a panelist on the “ELEFANT Student-Supervisor Agreement” for the Pharmacology Graduate Students Association (PGSA) Town Hall; Feb. 24, 2022; Virtual.

GradMinds - Graduate Student Mental Health Committee

Sept. 2020 - present

- Contributing journalist for the GradMinds mental health magazine: *Elemental Magazine*
 - Tio, E. (2024) Shkaabe Makwa, bringing First Nations, Inuit, and Metis mental health to the forefront—an interview with Louis Busch. *Elemental Magazine: Fostering Hope & Resilience*, 11, 48-50. Access [here](#).
 - Tio, E. (2022) Sleep, psychiatric diagnoses, and beyond—an interview with Dr. Michael Wainberg. *Elemental Magazine: Physical Health*, 9, 30-31. Access [here](#).
 - Tio, E. (2021) The evolving understanding of substance use during the pandemic—an interview with Dr. Tara Elton-Marshall. *Elemental Magazine: COVID-19*, 7, 30-31. Access [here](#).

Centre for Addiction and Mental Health (CAMH)

Sept. 2021 - Aug. 2023

- CAMH Trainee Seminar 2021-2023 Organizing Committee
- CAMH Research Day 2022 Organizing Committee

Institute of Medical Science Student Association (IMSSA)

Sept. 2020 - Aug. 2021

- Assisted the Wellness & Wellbeing and Social Affairs committees