
February 2023 Edition

Special Message

We are extremely excited to share the first 2023 edition of the Pharmer's Almanac! This issue includes a section on faculty and student news, as well as a section on faculty and student awards and recognition. The Department of Pharmacology and Toxicology is always proud of the hard work and high ethical standards that the faculty and staff hold. We want to take this opportunity to congratulate, and also recognize, each and every single faculty member and student awardee.

Faculty and Student News



2022 Newsletter

ISBRA features our very own faculty

We are very happy to announce that Dr. Harold Kalant and Dr. Manuela Neuman have been featured in [The International Society for Biomedical Research on Alcoholism's \(ISBRA\) 2022 Annual Newsletter](#).

ISBRA paid tribute to Dr. Kalant in a eulogy penned by Dr. Kalant's former Ph.D. student, Dr. Yedy Israel.

Dr. Manuela Neuman, who received an ISBRA life recognition award, was also honored in the annual newsletter.



Alexandra Malinowski receives UofT Student Leadership Award 2023

Congrats to Alexandra! We are very proud of you! Check out the department's [page](#) for more details!



Class of diabetes drugs cuts dementia risk in older adults

Congrats to Che-Yuan (Joey) Wu on the recent publication in [Diabetes Care](#). Check out the department's [page](#) to read more!



Building on recent advances to improve lung transplant outcomes

Dr. Ana Andreazza and Erika Beroncal are spearheading efforts to improve storage of donated lungs through their research work with the Mitochondrial Innovation Initiative (MITO2i). The lab is working on better ways to keep donor lungs healthy and on understanding genetic variation in mitochondrial genes to predict transplant success. [Read on!](#)



Ashim Bhattacharya featured in U of T News for his work with the U of T Run Club

A huge kudos to Ashim Bhattacharya who was recently featured in a U of T news article for his community-building work with the [University of Toronto Run Club](#). Ashim, an MSc student in the Hubbard lab, became co-president of the club in the summer of 2020 and worked to build an inclusive community with the motto: "no one left behind".

[Read the full story here.](#)

Awards and Recognition

2022 POSTDOC WINNERS



FIRST PLACE & PEOPLE'S CHOICE AWARD

Dr. Catharine Mielnik

Department of Pharmacology and Toxicology

"Allosteric Modulators: A New Class of Drug to Target the Endocannabinoid System"



SECOND PLACE

Dr. Matt Jones

Centre for Drama, Theatre and Performance

"Necro-Performance and the Global War on Terror"



THIRD PLACE

Dr. Simon KC Lui

Department of Psychology

"How the Brain Updates Information"

Dr. Catharine Mielnik wins First Place and People's Choice Award at the 3MTs

Congratulations to Dr. Catharine Mielnik! [Read on!](#)



Dr. Leonardo Salmena receives the 2022 award for Excellence in Linking Undergraduate Teaching to Research in Life Sciences

The award recognizes Dr. Salmena's sustained excellence, mentorship, and innovative methods that link undergraduate teaching to experiential research opportunities. His

dedication to providing hands-on experience to many undergraduate students demonstrates his important and tangible contributions to research education. Congratulations to Dr. Salmena, we are very happy for you!

[You can read more here!](#)

2021 - 2022 Awardee Profiles

Undergraduate Student Awards

Dr. Walter Roschlau Memorial Award in Pharmacology - Timofei Chernega and Andre Kronic



Throughout his time as a Pharmacology Specialist and Molecular Genetics and Microbiology Major student, he has immersed himself in the field of mitochondrial research. In his second year, he started his research career as an ROP student in Dr. Thomas Hurd's

Lab, where he studied mitochondrial purifying selection in female germline of *D.melanogaster*. Shortly after, he joined Dr. Ana Andreazza's Lab where, for two years, he worked on several projects involving mitochondrial genetics and methods of assessing mitochondrial function. During his time in Dr. Andreazza's Lab, he was able to develop and optimize qPCR and dPCR methods for quantifying intracellular and circulating cell-free mtDNA, participate in several large-scale clinical studies, and publish a review regarding the potential of using RNA-based therapeutics for treatment of mitochondrial diseases.

He is very grateful to receive this award in recognition of all the hard work he put in over the past four years; it has renewed his motivation and reignited his desire to seek a career in research.



By enrolling in the Pharmacology Specialist Program, Andre aimed to learn more about the future of therapeutics. To further this goal, he undertook a third-year research project with the Belsham Lab in Physiology, investigating the determinants of central feeding regulation, as well as a fourth-year thesis with Dr. Micheline Piquette-Miller on the effects of N-acetylcysteine on rats. By using the skills gained during his time at the University of Toronto, he will be pursuing his PhD at Boston University's School of Medicine, specializing in neuropharmacology.

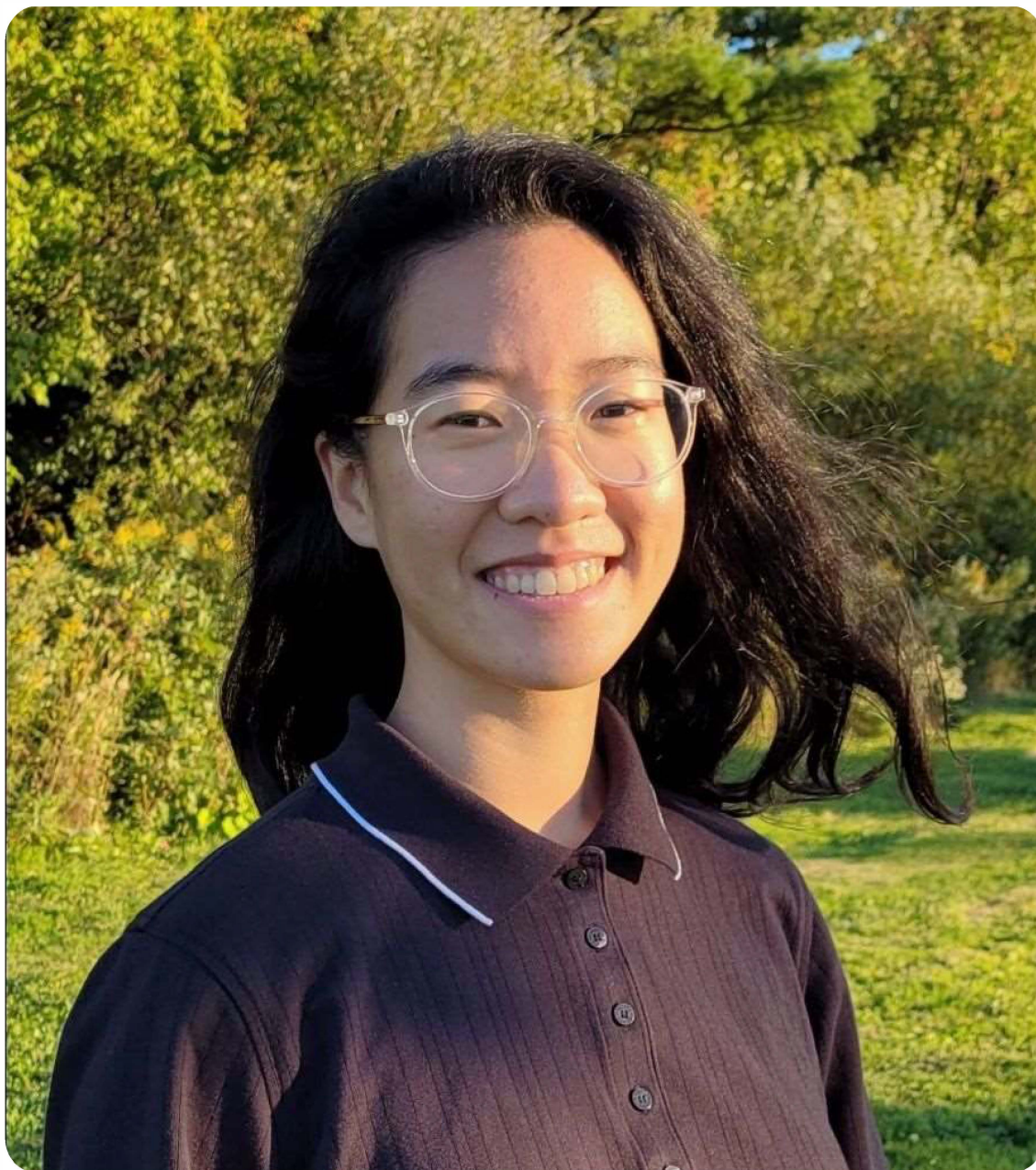
W. Mac Burnham Achievement Award - Rebecca Rocco



Rebecca is very honored to have received this award. Taking Dr. Burnham's Neuropsychopharmacology courses were a highlight of her degree. She would like to thank the Department of Pharmacology and Toxicology for the numerous opportunities and support given to her throughout her undergraduate years. She would like to thank the incredible faculty, including Dr. Michelle Arnot, Dr. Noufissa Kabli, and Dr. Mac Burnham. Without their guidance, she would not have discovered her developing interest in

neuropharmacology and neural disorders. Rebecca is currently pursuing a Masters in pharmaceutical sciences at the Freie Universität Berlin in Germany and will be taking everything she learned at UofT with her!

Dezso Kadar Pharmacology Student Achievement Award - Zhizhi Xia



Zhizhi, who also goes by Jessica, moved from Nanjing, China to Canada in Grade 10. She entered the University of Toronto still unsure of what she wanted to do. It was PSL190 that first exposed her to drug discovery research. From there, Zhizhi knew she wanted to study how drugs worked, in hopes of developing drugs for diseases yet to have a cure. Therefore, she pursued the Pharmacology Specialist Program. The program has been tough but she greatly appreciates the department for all the opportunities it has given her, from awe-inspiring lectures to hands-on research opportunities. In particular, Zhizhi believes the undergraduate laboratory courses have been meaningful as they have taught her not only how to perform experiments, but also how to critically analyze the results of those experiments in the context of existing literature. She is honoured to receive this

award and feels greatly encouraged by it.

Most recently, Zhizhi has been admitted to the direct-entry Ph.D. program in the Department of Molecular Genetics and will be beginning her graduate studies this fall where she hopes to better understand the mechanisms of disease to aid drug discovery. Before coming to U of T, Zhizhi never considered the possibility of becoming a research scientist. However, being surrounded by professors and TAs who are always fostering her curiosity, pushing her to think deeper, and motivating her to work harder, the path to becoming a research scientist has become increasingly tangible each day.

Graduate and Life Sciences Education Undergraduate Student Leadership Award - Emily Mathers



Emily's leadership philosophy is rooted in empowering others and cultivating the leaders of the future by supporting holistic learning and providing opportunities for students to reach their full potential.

As a second-year student, Emily joined the Pharmacology and Toxicology Student Association (PTSA) mentorship program as a mentee, and quickly realized the importance of community. Two more years of learning about student life in-depth through her roles as a Member-at-Large and Director of Finance provided her with the framework to become a

Co-President, inspired by those before her. Emily was elected the following year at the start of the pandemic, and again following her Professional Experience Year at Procter & Gamble. As Co-President, she has been committed to supporting student initiatives to increase online engagement. Emily worked with the executive and listened to the student body to create events tailored to student interests, including graduate panels, mentorship events and research seminars. Student passion was reflected in these events, as over 20 students attended each event. Being Co-President taught her that whilst adapting to new circumstances and collaboration are essential for success, a leader needs to integrate feedback and is greatly defined by the strength of their team.

These values have carried into Emily's work on the PharmaChronicle Magazine; from Writing Lead to becoming Editor-In-Chief (EIC), the team and Emily recognized the importance of promoting broader topics, prioritizing student interest. More innovative and societally relevant topics were explored, including nanomedicine and mental health, additionally causing a 400% increase in engagement. The journal has reached all undergraduates from Arts and Science, as the magazine has received writing applications from those with a range of academic backgrounds who are also passionate about pharmacology. Whilst promoting students' passions for science and providing growth opportunities, the PharmaChronicle has uniquely allowed Emily to assist in uplifting student voices and share pharmacology with other students regardless of scientific background.

Emily's passion for inspiring future leaders to drive positive change continues to extend into her community. She was provided the opportunity to become a Duke of Edinburgh Award Leader as she had completed all award levels, receiving her Gold Award in 2017 from Prince Harry. As an Award Leader, she supports the holistic growth of her participants through mastery of a skill, service learning, endurance from sports, and overall perseverance. Despite COVID-19, she has supported three participants to Bronze Award completion, and will continue to support them through their journey to Gold.

Overall, Emily believes that cultivating an environment that supports emerging leaders is essential to catalyzing positive change. Through her passion for community, the growth of others, and well-rounded learning, she will continue to carry her leadership philosophy beyond the University of Toronto to empower others and ultimately make the world a better place.

Graduate Student Awards

Amar K. Sen Memorial Award - Chidera Chukwueke



Chidera completed his Honours Bachelor of Science (Specialist in Psychology/Major in Neuroscience) at the University of Toronto Scarborough. In the Fall of 2016, he began his MSc in Pharmacology under the supervision of Dr. Bernard Le Foll at the Centre for Addiction and Mental Health (CAMH). His thesis focused on neuroimaging and behavioural experimental tools to explore the role of neurotransmitter systems in addiction. Eventually, he continued his graduate training as a PhD student in 2017, where he explored the influence of dopamine D3 and cannabinoid CB1 receptors in substance use disorders. His thesis research led to three first-author published research articles and three first-author book chapters.

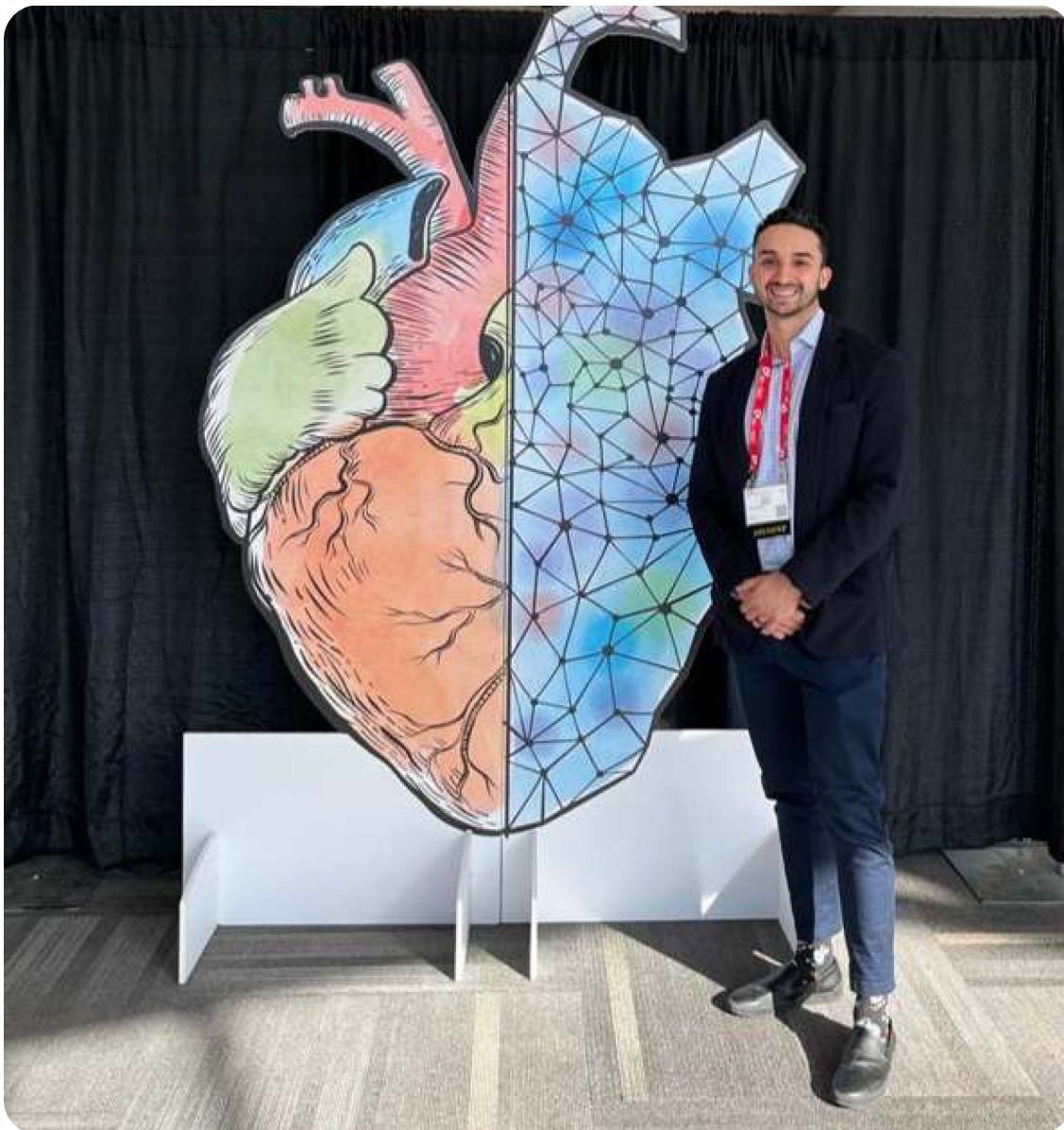
During his doctoral research, he became interested in pursuing careers in business and explored opportunities to broaden his exposure outside the world of academia. He completed courses through the Rotman School of Management and took on leadership roles with the Graduate Management Consulting Association and the University Consulting Group. Following the completion of his PhD, Chidera successfully transitioned to a role with Oliver Wyman, a global top 10 strategy firm, as a management consultant.

Fiona Smillie Memorial Award - Marlaina Stocco



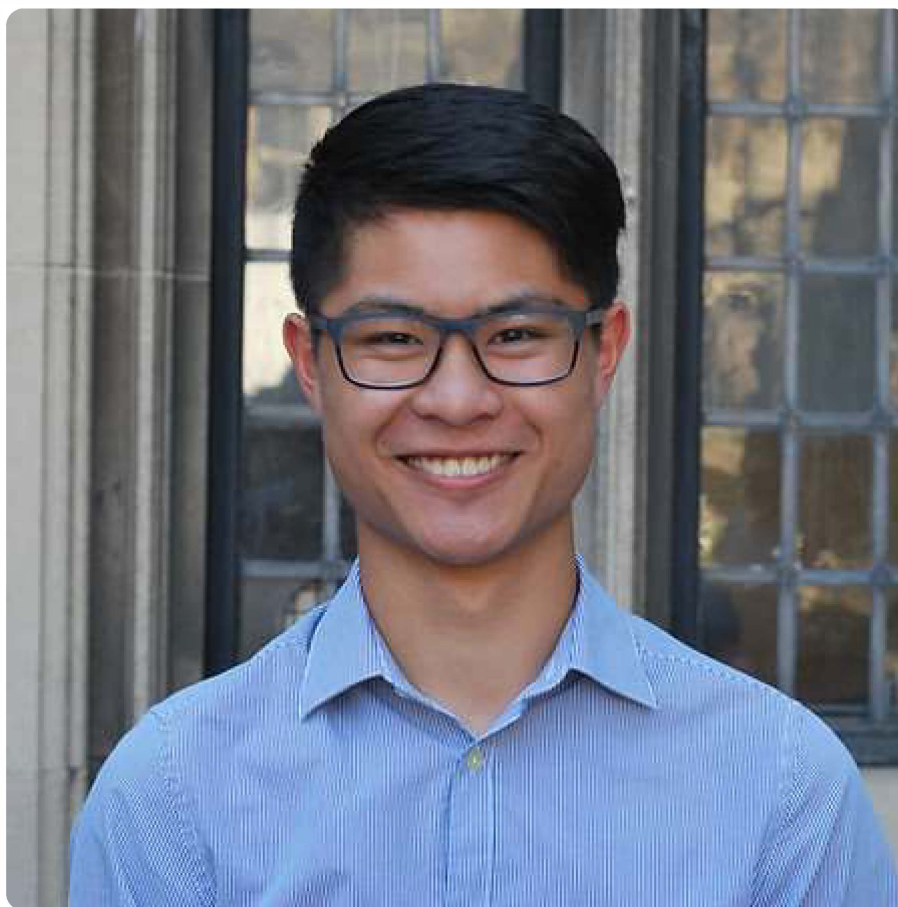
Marlaina is currently a postdoctoral scholar in the Psychological and Brain Sciences Department at the University of California, Santa Barbara. Marlaina's research involves characterizing the physiological, pharmacological, and environmental factors that contribute to individual and group differences in addiction-related behaviours, including preference and motivation for drugs of abuse.

Dr. Gary E. Raskob Graduate Award - Ehab Bakbak



Ehab is a fourth year PhD student working in Verma Lab at St. Michael's Hospital on a variety of translational research projects attempting to identify novel strategies for cardiovascular risk reduction. He has a keen interest in knowledge translation and clinical trial design. Outside of research, he is a big-time Toronto Raptors fan, petrol head, and fitness enthusiast.

Harold Kalant Award 2021 - Jonathan Chow



Jonathan is a fourth year PhD student in the Salmena Lab studying the role of microRNA in prostate cancer. His interest in microRNA and cancer research started in his undergraduate studies and has continued to grow. Cancer is a complex disease akin to a near-unsolvable puzzle. Jonathan hopes to contribute to the solution to this puzzle through his current PhD studies and beyond.

Jonathan is honoured to receive the 2021 Harold Kalant Award for his paper published in *Genes* in August 2020. The late Dr. Kalant set a precedence for research excellence and positive contributions to society through research. This award in his name is a reminder of this legacy. For Jonathan, this award is a reminder of the privilege that we all have to follow in Dr. Kalant's footsteps and make positive impacts on those around us through our daily work. Jonathan hopes to have his research group one day to continue pursuing meaningful research questions and inspire the next generation of scientists.

Dr. Malle Jurima-Romet Award - Erin Williams and William Lin (Honourable Mention)

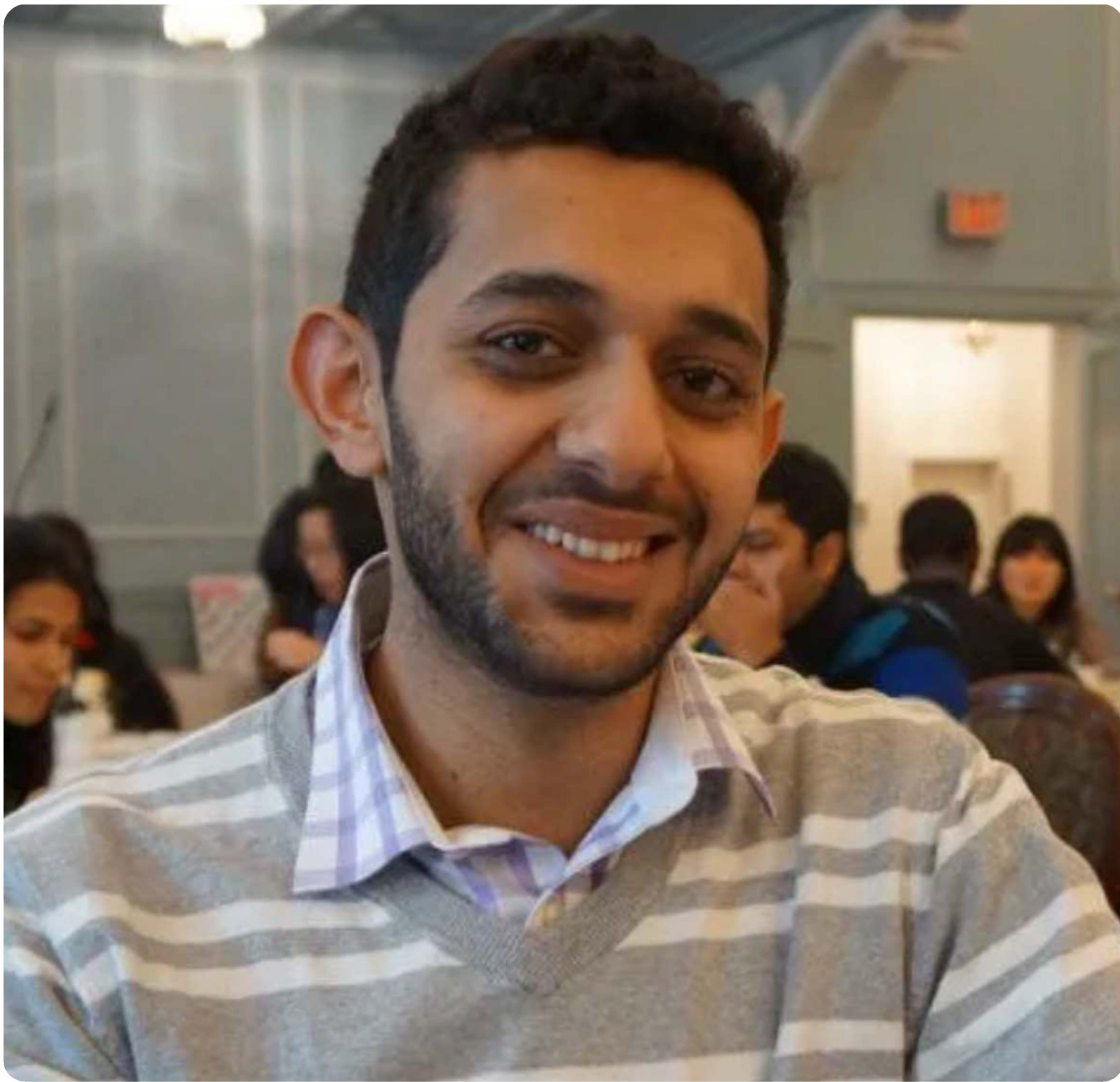


Erin is a fourth year PhD student co-supervised by Dr. Ali Salahpour and Dr. Matthieu Shapira. Her research focuses on modeling the human dopamine transporter with the intention of identifying treatment for Dopamine Transporter Deficiency Syndrome (DTDS). Outside of the lab, Erin is an avid and enthusiastic knitter. She rediscovered this hobby during the COVID lockdown and has been knitting non-stop ever since. She has even started a small business: @thelocalknitwit on Instagram or Etsy. Erin would like to thank the Romet family for their generosity and support for students' creative passions outside of science.

Leadership and Exemplary Service Award - Alaa Alsaafin and Martino Gabra



Alaa is in the last stretch of her PhD degree, where she is investigating associations between genetic variation and substance use acquisition and escalation in youth. As a graduate student, Alaa realizes the importance of celebrating and empowering other students in order to foster a deeper connection, and a more inclusive community. She has a strong passion for promoting positive change in different facets of graduate student life, whether at the individual, departmental, or faculty level. Among the many engagements she undertook during graduate school, Alaa was recently the President of the Pharmacology Graduate Students Association (PGSA) and the Life Sciences Career Development Syndicate (LSCDS). In 2022, she received a number of leadership awards, including the UTFA Al Miller Memorial Award, Graduate Community Development Fund, Leadership and Exemplary Service Award, and the Departmental Teaching Assistant Excellence Award. Alaa is currently an undergraduate course instructor for PCL201.



Martino completed his PhD in 2022 from Dr. Leonardo Salmena's Lab. His thesis focused on identifying the roles of microRNAs in Acute Myeloid leukemia through high throughput screening methods. Throughout his PhD, he was an active participant and leader in a number of student-led initiatives that focused on improving student life. He lobbied for increased stipend pay with the Graduate Representation Committee, introduced the Elephant document with Sasha Marakhovskaia, and participated in several events to bring students together. Martino currently works as a Scientist at Deep Genomics where he continues to contribute to the field of small RNA therapeutics.

Excellence Through Equity Graduate Scholarships - Louange Hezumuryango and Alicia Canuel



Louange is in the first year of the Masters Program in Applied Clinical Pharmacology and looks forward to furthering her understanding of pharmacology and the use of pharmacogenetics in the field of personalized medicine. Louange hopes to apply the knowledge gained from courses and research experience to later pursue her passion of helping those in need and promoting equity by contributing to expanding the availability of medicine.



Alicia Canuel is a first year master's student working in Dr. Michael Olson's Lab. Alicia is exploring the cell signaling pattern of a protein that contributes to the ability of ovarian cancer to spread and form secondary tumours.

Alicia enjoys doing puzzles, baking, playing games, and watching TV.

Visions in Pharmacology Travel Award - Aleksandra Marakhovskaia



Aleksandra is a sixth year PhD student in the lab of Jean Martin Beaulieu. Aleksandra's passion to grow as a scientist allowed her to join the Temerty Faculty of Medicine to pursue her PhD. She is driven by research on psychiatric disorders and hopes to use molecular biology approaches to discover new insights into the pathology of these diseases.

Aleksandra explains that she has "been fortunate to receive Mito2i Fellowship in 2021 and that's been an honor to expand [her] research into the mitochondrial field and hoping to include the obtained data in [her] upcoming publications". She has also participated in multiple extracurricular projects that were aimed to improve the experience for graduate students and has received The Graduate Community Development Fund (GCDF) from UTGSU this spring.

She feels extremely honored and humbled to receive the Visions in Pharmacology Travel Award.

Stay tuned for more award announcements in the next edition!

Other [recent publications](#) from PharmTox

Mental Health Resources

Please know that there are a wide variety of supports available to all U of T students, staff, and faculty. Here are a few helpful links and phone numbers:

Students

- <http://pharmtox.utoronto.ca/health-and-wellness>
- [My Student Support Program \(MySSP\)](#): U of T MySSP provides students with immediate and/or ongoing confidential, 24-hour support for any school, health, or general life concern.
1-844-451-9700 (North America); 001-416-380-6579 (outside of North America)
- [Good2Talk Student Helpline](#): **1-866-925-5454**
- [Navi](#) An anonymous chat-based service that acts as a virtual assistant for students wanting to learn more about the mental health supports available to them at the University of Toronto.
- [School of Graduate Studies Embedded Counsellors](#)
Free short-term counselling (~6 sessions). Phone: **416-978-8030, Ext. 5.**
- [Grad Studies Wellness Portal](#)
- [Student Mental Health Resources](#)

Faculty and Staff:

- [HR and Equity Support and Advice for Employees during COVID-19](#)

Community Helplines:

- [Gerstein Center Mental Health Crisis Line](#): **416-929-5200** Provides free, voluntary, and confidential crisis intervention service over the phone and in-person for adults living in the City of Toronto. Available 24 hours a day, 7 days a week.
- [Toronto Distress Centre Hotline](#): 416-408-HELP (4357) or text 45645. Offers 24/7 emotional support, crisis intervention, suicide prevention and linkage to emergency help when necessary. Available 24 hours a day, 7 days a week.
- [Canada Suicide Prevention Service](#): **1-833-456-4566** Available 24/7 for phone calls to help individuals thinking of suicide or worried about a potentially suicidal loved one. Also available from 4pm to 12am ET via text at 45645.

We'd love to hear from you!

Have an event, story, award, or publication you'd like to share? [Let us know!](#)



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