

AREEBA CHAUDHRY

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EDUCATION

University of Toronto

MD, Undergraduate Medicine

Expected in 2027

Global Health Education Co-Curricular Certificate

Granted in 2024

York University

B.Sc., Honours Biology (Biomedical Science); **4.0/4.0 GPA**

Granted in 2023

- Graduated with the **Faculty of Science Gold Medal**

RESEARCH WORK EXPERIENCE

Sunnybrook Research Institute Research Volunteer

11/2024 - present

Garry Hurvitz Brain Sciences Centre || Evaluative Clinical Sciences

- Analyzed the impact of prolonged transfer times on Stroke patient outcomes using administrative patient databases in Ontario.
- **Techniques:** literature reviews, ICES administrative database navigation, quantitative analysis of retrospective patient data, grant and abstract preparation.

Sunnybrook Research Institute (SRI) Summer Research

05/2024-08/2024

Schulich Heart Centre || Evaluative Clinical Sciences

- Analyzed patient data on health indicators (e.g. lifestyle and physical measures) to update the CANHEART Health Index tool to measure population-level cardiovascular health.
- Led the design of a survey on the use of the Framingham Risk Score by primary care physicians to obtain insight into the prescription of statins.
- **Techniques:** literature reviews, survey creation and analysis, focus groups, analysis of retrospective patient data, and manuscript preparation.

NSERC Undergraduate Summer Research (2023)

05/2023-08/2023

Peng Lab, York University || Medical Molecular Biology, Preeclampsia Pathogenesis

- Carried out a full-time summer project to uncover the molecular mechanisms of preeclampsia pathogenesis during miscarriage and identify potential biomarkers.
- **Techniques:** cell culturing, bacterial transfection, co-immunoprecipitation, western blot, PCR, siRNA knockdown, and overexpression assays

NSERC Undergraduate Summer Research (2021 & 2022) (40 hours/week, 3 months each)

05/2021 – 08/2022

Honours Thesis Project (BIOL 4000)

09/2022 – 04/2023

Hili Lab, York University || Biochemistry and Pharmacology

- Carried out full-time summer projects and Honours Thesis on generating therapeutic aptamers against inflammatory protein targets.
- **Techniques:** HPLC purification, electrophoresis, PCR, qPCR, bioinformatic sequencing analysis, in vitro selection, SPR binding analysis, manuscript preparation.

Research Publications:

- Manuscript submitted for publication in Journal of the American College of Cardiology (Jan **2025**), 2nd author - "Examining the Association between an Updated CANHEART Health Index with Outcomes in Women and Men"
- Manuscript published in Chemical Science (Jan **2025**), 3rd author - "Ligase-catalyzed transcription and reverse-transcription of XNA-containing polymers using T3 DNA ligase"
- Manuscript published in Journal of the American Academy of Dermatology (Jan **2025**), 5th author - "Comparative Analyses of Hidradenitis Suppurativa Surgical Methods: A Systematic Review and Meta-Analysis"

Research Conference Presentations

- Oral talk at CASEM **2025** and Poster presentation at 12th Annual Concussion Research Symposium **2025** - "Quality Improvement in Compassionate Concussion Care: Application of Cultural Historical Activity Theory Framework"
- Poster at Sunnybrook Research Institute (SRI) Conference **2024** & the University of Toronto Medical Student Research Day (MSRD) **2025**, 1st author - "Feasibility of Updating the CANHEART Health Index Tool using the Ontario Health Study"; **Best poster prize at MSRD**
- Poster at York University's **2023** NSERC Undergraduate Summer Research Conference, 1st author - "Exploring the

Interaction between NLRC5 and FUS in preeclampsia pathogenesis”

- Oral talk at York University’s **2022 NSERC Undergraduate Summer Research Conference** - “Generation of Xeno Nucleic Acid (XNA) Aptamers Against Human α -Thrombin using T3 LOOPER”; **2nd Best Oral Talk Prize**

AWARDS

- Mary Cassidy outstanding contributions to extracurricular activities in the faculty of medicine - \$300
- Best Poster Prize, University of Toronto Medical Student Research Day 2025 - \$250
- **Sunnybrook Research Institute Summer Research Award (2024) - \$10,000**
- **NSERC Undergraduate Summer Research Awards (2021, 2022, 2023) - \$8400**
- **York University Faculty of Science Gold Medal (2023)** - Awarded at convocation for the highest cGPA.
- Bethune College Academic Community Building and Leadership Award (2023)
- Temerty Medicine John Wolfe McColl Memorial Entrance Award [academic achievement] (2023) - \$1000
- 2nd Best Oral Talk Prize, York University Undergraduate Research Conference (2022)
- **Mccall Macbain Provincial Scholarship [for leadership & community service] (2022) - \$5000**
- Life Science Ontario Scholarship Program [for leadership and research] (2022) - \$3000
- Ontario Student Opportunity Science Award [for the highest GPA in the Faculty of Science] (2021 & 2022) - \$5000

WORK EXPERIENCE HIGHLIGHTS

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| Medical Education Researcher <i>The Wilson Centre, AERO, Unity Health</i> | Toronto, ON |
| <ul style="list-style-type: none">• Work in teams of 3-5 on two different projects aimed at enhancing medical trainee learning at UofT. Leading a project comparing self-directed versus instructive models of teaching thoracentesis to general surgery residents at UofT. | 10/2024 – present |
| MCAT Course Teacher, Community of Support <i>Temerty Medicine</i> | Toronto, ON |
| <ul style="list-style-type: none">• Taught weekly 3-hour biology/biochemistry/psychology lessons to ~60 students from equity-deserving groups. Tailored teaching style to the needs of the group. | 04/2024- 08/2024 |
| Peer Academic Support Assistant, Introductory Biology <i>York University Faculty of Science</i> | Toronto, ON |
| <ul style="list-style-type: none">• Delivered lessons and mock tests for 1st-year bio students. Used probing questions and activities for engagement; checked for understanding and adjusted pace. | 04/2024- 08/2024 |

VOLUNTEER AND EXTRACURRICULAR HIGHLIGHTS

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| NeuroBridge Initiative Founder <i>Temerty Medicine</i> | Toronto, ON |
| <ul style="list-style-type: none">• Spearheaded a student-led organization of 16 medical students dedicated to bridging gaps in brain health awareness through community partnerships. Developed workshops in collaboration with neurology organizations, senior residences, and cultural groups, fostering two-way learning. | 10/2024 –present |
| Prototype Program Project - 3D Heart Models <i>Temerty Medicine</i> | Toronto, ON |
| <ul style="list-style-type: none">• Worked with Dr. Seth Gray and 5 students to create 3D-printed pathological heart models for use in pre-operative clinic patient education. Created surveys for both medical trainees and patients to measure the efficacy of models. Scheduled to present at the 2025 Porotype competition. | 10/2024– present |
| Students as Teachers Program <i>Temerty Medicine</i> | Toronto, ON |
| <ul style="list-style-type: none">• Completed an additional training program on teaching as a medical student; co-taught an interactive lesson on clinical skills for first-year medical students. | 09/2024– present |
| Ontario Medical Student Education Research Conference Exec <i>OMSA</i> | Toronto, ON |
| <ul style="list-style-type: none">• Helped lead the organization for a provincial conference in medical education with of 150+ attendees. Delegated tasks amongst 6 students and liaised with physician experts in the field. | 08/2024– 01/2025 |
| File Lead for Pre-Clerkship Education Advocacy Task Force <i>CFMS</i> | Toronto, ON |
| <ul style="list-style-type: none">• Co-authored a policy paper advocating for support for medical students with disabilities and chronic health conditions; collected data from medical students via survey administration. Presented the team’s advocacy projects at the 2025 CFMS Day of Action in Halifax. | 08/2024– present |
| Choosing Wisely Canada Representative <i>Temerty Medicine, UofT</i> | Toronto, ON |
| <ul style="list-style-type: none">• Promoted resource stewardship and patient safety by creating pocket cards with tips for use on clerkship rotations and biannual workshops with case examples led by staff & residents. | 08/2024– present |
| Peters-Bloyd Academy Representative <i>Temerty Medicine 2T7 Class Council</i> | Toronto, ON |
| <ul style="list-style-type: none">• Hosted 3-4 networking and social events per term for PB peers to create a sense of community. Ranged from the annual holiday party (100+ attendees) to career night (60 attendees) and more. Relayed concerns of peers to PB directors at quarterly meetings. | 10/2023– present |