

CAMELIA URSU - CURRICULUM VITAE

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Honors Biochemistry and Medical student with experience in community service, research, childcare, and science communication. Prior and current roles include Team Lead at TELUS Spark Science Center, Regional President of a national bioinformatics research organization, Science Representative for the Women in STEM at UCalgary, student clinician, AHS volunteer, iGEM researcher, Tier 1 NSERC USRA Researcher, and Arts and Sciences Honors Academy milestone candidate.

EDUCATION

Western Canada High School – International Baccalaureate

June 2020 | 44/45, top 1%, top of my class, top 10 provincial graduates

▪ **Governor General's Academic Award and Medal** [highest academic standing upon graduation, high school], **Old Boy's Memorial award** [academic achievement and community service], **Western Canada High School Alumni award**, **Alexander Rutherford Top 10 Academics Provincial Award** for top 10 high school graduates in the province.

Honor Society Member ▪ Active member of the Old Boys Association, Executive of the Interact/Rotary Club

▪ Member of the nationally recognized concert ensemble (2017-2020), dedicated 10+ hrs. a week, including weekends

▪ IB Diploma Programme Graduate with a top graduating class score of 44/45, including three extensive research projects that spanned a period of 2 years

University of Calgary – MD (2026) | BSc. Biochemistry, Honors Stream (2024)

Graduated early to begin medical school in 2023 | GPA 3.95

▪ **Dr. Lynne M. McKenzie Memorial Award in Rural Family Medicine, Arts and Sciences Honors Academy Award and Milestone Candidacy, President's Entrance Award, IB Entrance Award, John D. Petrie Memorial Undergraduate Award.**

▪ Shanghai Jiao Tong University 2021 Summer Research Internship under Dr. Ren, Hematology and Oncology

▪ University of Calgary Individual Project Research, NSERC USRA, Dr. Mathilakath Vijayan Zebrafish Lab, Tier 1 Chair

▪ Youreka Canada Regional Director for the Calgary Branch, 2018 and ongoing

▪ iGEM 2023 Research Team - competed at the international iGEM Jamboree representing the University of Calgary team

WORK EXPERIENCE

TELUS Spark Science Center – Calgary Science Center Society, Calgary, AB

Daily Programs Team Lead

September 2020 – November 2022

▪ Engage with children and adults of all ages and backgrounds in a fast-paced environment to introduce them to scientific concepts ranging from electricity and force to the human body, life in outer space, and the Arctic circle wildlife;

▪ Develop a broad range of communication skills to engage with visitors of all ages and abilities in truly meaningful ways;

▪ Engage with visitors who had learning disabilities in an applied and personalized manner, using direct dialogue and catering to their own needs and capacities in various settings, spanning from indoor and outdoor play to hands on activities;

▪ Supervise Science Guides and offer support to events crew, daily programs staff, custodial, exhibits technicians, and all other staff members on a daily basis to ensure success of evening and day time events;

▪ Liaise with upper management to encourage the development of proper tools and equipment for Science Guides to be better suited to communicate certain advanced, yet imperative topics, such as Indigenous ingenuity in the sciences, the significance of climate change in community settings close to home as well as internationally, and the value of accessible education - able to use simple objects and tools to deliver these messages in attainable and often subtextual ways that are contextual to settings and age groups present;

▪ Prepare for holidays, events, and exhibits by educating myself in-depth about the particular event (i.e., conduct research about the Arctic and Indigenous lives in Arctic communities to provide a well-rounded experience for guests, or get to know native Panda species in mainland China to contribute interactive, approachable teaching and learning);

▪ Lead birthdays and events with liquid nitrogen experiments and fire shows (utilizing a Bunsen burner, various chemicals, methane gas bubbles, and similar equipment to show the properties of different salts, gasses, and such) -- maintain safe, calm, and engaging demeanor when interacting with children of all ages in rapid-paced programs and events;

▪ Maintain calm and collected composure in stressful situations, spanning from exhibits breaking down to visitors finding themselves in dangerous situations to missing children calls in order to act quickly, make the right calls to different teams, and delegate as needed.

Alberta Health Services - Rotary Flames House and Tom Baker Cancer Center, Calgary, AB

Volunteer

March 2021 – present

- Conducted primary office work-ups, preparing files and packages for clerks and office staff, and delivering these charts to different parts of the Outpatient Clinic;
- Help patients find their way to their clinics and doctors in the TBCC as well as in the main building of the Foothills Medical Center, often transporting wheelchairs and helping patients with neurological conditions find taxis or loved ones;
- With almost all of the child patients being non-verbal, I curate special activities for each child I interact with to make their visit and stay more comfortable and specialized to their needs;
- Interacted with all members of the hospice, including visitors, to make the facility warm and welcoming during difficult times - learned how to compose myself until I left the premises during difficult times when patients were passing away, keeping a happy demeanor around small siblings or other visitors during these shifts;
- Was able to spend time one-on-one with patients, taking them on walks, around the hospice, and being trusted to make the right calls in cases of urgency;
- Supported the nursing staff, brought supplies, and transported and prepared patients for bed;
- Prioritized patient care in every interaction, regardless of the happenings at the time;
- Interacted with families and siblings to make sure that patients were getting as much attention and care as possible.

Other roles (details omitted for space purposes)

Edmonton Trail Medical Clinic Calgary, AB

Medical Office Assistant Volunteer

June 2017 – June 2020

Renfrew Aquatic and Recreation Center Swim – Calgary, AB

Swim Instructor Volunteer

June 2016 – June 2019

St. Vladimir Orthodox Church and Childcare Center – Calgary, AB

Night-time Custodian

September 2018 – April 2021

RESEARCH AND LEADERSHIP

Indigenous Studies Practicum, Dr. Adela Kincaid, University of Calgary

As a biochemistry student, much of my learning is founded on rigid concepts pertinent to quantum biochemistry, physics, cellular, molecular, and microbial biology, zoology, statistics, and many more of these disciplines. I chose throughout my degree to pursue a plethora of creative courses alongside ones I deemed more meaningful to enrich my learning experience and make my contributions to work and research in a good way. Engaging in a research practicum in the Indigenous Studies department allows me to work with various projects and organizations, namely Pathways2Healing. As part of my volunteering, I transcribe yearbooks from various residential schools and archives to help develop searchable documentation of the children taken away from their families and their experiences in the schools. This practicum also allows me to explore a personal project, which I have based on the decolonization and reimagining of research practices.

Student Run Clinic, Cumming School of Medicine | *Research Executive*

The Student Run Clinic is a non-profit organization that works to provide accessible and quality medical care to Calgary's inner-city population, namely those living rough or those seeking resources through The Mustard Seed. Physicians and medical student volunteers help deliver primary care services, while also running various fundraising events, offering wellness workshops through the YWCA, helping with prescriptions and refills, and chronic disease counseling and management. As a SRC clinician and the research executive, in addition to all of these roles, I also collect information onsite and work with our vulnerable populations to tell their stories qualitatively and quantitatively, encouraging systemic change.

iGEM (International Genetically Engineered Machine Competition) Researcher, Dr. Mayi Arcellana-Panlilio, Cumming School of Medicine

2023 Competitor and Researcher

The International Genetically Engineered Machine (iGEM) competition is entirely student initiated, leading to a final competition where we participate as a multi-faculty team using synthetic biology to solve real-world problems. As part of our research, we implemented an Iterative Human Practices approach, such that we are able to gather information and input from disadvantaged populations struggling with cholesterol levels and statin side effects to figure out community needs. Using various modeling and software tools, we created a protein design tool that allowed us to optimize our own fusion protein and present a model for alternative medication systems. We presented our work at the annual iGEM Jamboree in France and had the opportunity to connect with other teams about imminent global issues.

Youreka Canada, Calgary Branch

Regional Director, VP Outreach, VP External

Before commencing my role as Regional Director, my position as an Investigator led me to present findings on low-grade glioma to a panel of judges and publish independently with the Canadian Science Fair Journal. This opportunity resulted from my group's use of STRING and Prism Graph Pad alongside research publication portals and patient databases to outline new research and data pertaining to the effects of genes SHC1, ARAF, CALM3, and PRKCB on low-grade glioma prognostic and growth. As President, I developed life-long connections between students, schools and our organization to promote research awareness alongside building young students' confidence as scientists and people. Current goals for the term revolve wholly around the recruitment of students in schools that are not regularly involved in academic programs due to a lack of engagement on the behalf of clubs and organizations and the lack of academic privilege experienced by these students.

University of Calgary, Zebrafish Lab [NSERC USRA]

Funded by the NSERC USRA, I commenced a project on the effects of arsenic trioxide on early life development of zebrafish larva from zero to six days post fertilization. I conducted my own experiments, molecular assays, behavioral stress assays, and other cortisol, glucose, and lactate ELISAs and assays on over 6000 fish larva to determine the effects of arsenic contamination in rural and remote wastewater systems on the stress axis and oxidative stress or cancer onset of populations living in those areas.

Shanghai Jiao Tong University, Ren Lab, Hematology and Oncology

Explored various research topics on clonal hematopoiesis to create formal presentations that were presented to a laboratory team studying the effects on ongoing inflammation on stem cells and blood cell immunity. Used mice model experiments to generate hypotheses about the role of stem-celled engineered approaches to cancer therapy and the roots of stem-cell immunity in human populations. Wrote a review article on 7 laboratory publications to generate topics for further exploration, based on the study of various genes and protein markers in the blood that lead to cancer or carcinogenic mutations over time.