

Kathleen Dunne

Education

| **University of British Columbia**

[September 2020- Expected May 2025]

B.S in Cellular, Anatomical, and Physiological Sciences Major, pursuing a Minor in Animal Biology

- Current 4.33 GPA, weighted.
- Dancer on UBC DH collective, an audition based cross genre performance team (*January 2023-present*).
- Student researcher in the Cembrowski lab as a directed studies student (*January 2023-May 2023, January 2024-present*) and WorkLearn research assistant (*May 2023-September 2023*).
- Committed to increasing the accessibility of science as a chemistry teaching assistant (*awarded UTA award*) and SUS mentor.

Awards

UBC Chemistry Undergraduate TA Award

[2023]

Awarded to undergraduate teaching assistants who go above and beyond when teaching students. Acknowledges exceptional dedication, leadership, and passion when engaging and helping our students is invaluable.

Science Scholar Dean's Honor List

[2022, 2023]

Awarded to students promoted to second, third, or fourth year with a standing of 90% or higher.

Charles and Jane Banks Scholarship

[2022, 2023]

Awarded by faculty members' recommendations to students excelling in their faculty.

Hugh M Brock Go Global Scholarship

[2022]

Awarded by recommendation of UBC Go Global and Enrollment services to outstanding students participating in a Go Global Exchange program.

Dean's Honor List

[2021, 2022, 2023]

Awarded to students promoted to second, third, or fourth year with a standing of 80% or higher.

Experience

Cembrowski Lab

[January 2023-Present]

CAPS 448 Directed Studies Student (current)

- Title: Histological characterization of amyloid beta localization across Alzheimer's disease progression.
- Performing cryosectioning, immunohistochemistry, microscopy, and image analysis.

UBC WorkLearn Research Assistant (May 2023-September 2023)

- Employed multiplexed fluorescent *in situ* hybridization to quantify the expression of leptin and insulin receptors in the hypothalamus.
- Analyzed transcriptomic data through a complex bioinformatics pipeline.
- Performed techniques involving tissue staining, microscopy, and machine learning to analyze and present clear results.

Directed Studies Student (January 2023-May 2023), awarded 93%

- Title: Characterization of spatial distribution and gene expression of hypothalamic neurons implicated in leptin resistance.
- Performed multiplexed fluorescent *in situ* hybridization, microscopy, and image analysis.

UBC Farm Work Learn Student

[August 2021-May 2023]

- Collaborated with team members to organize and execute the UBC farmer's market.
- Used R to independently manage the analysis and presentation of past sales and market data.

Mentorship and Volunteering

UBC Organic Chemistry Teaching Assistant

[May 2022-Present]

- Responsible for the safety and wellbeing of students in UBC's organic chemistry laboratory.
- Evaluates students' understanding of lab skills and provides considerate suggestions for improvement.

UBC Science Undergraduate Society Mentor

[September 2023-Present]

1 on 1 mentorship with first year undergraduate students to give insight on academic and career goals.

Let's Talk Science Volunteer

[May 2023-Present]

Organize and execute science outreach, competition, and engagement activities to increase the accessibility of science and research to children.

UBC Anatomy and Dissection Club Treasurer

[January 2023-Present]

Managed the finances of a club committed to increasing the accessibility of medical and physiological sciences.

Skills and Interests

Lab Techniques: multiplexed fluorescent *in situ* hybridization, immunohistochemistry, cryo sectioning, PCR, RT-PCR, agarose gels, restriction digests, plasmid cloning, cell culture, confocal imaging, mouse IP and SC injections

Interests: molecular mechanisms of memory, evolutionary biology, human physiology
dancing, skiing, pottery, reading, and baking.