

Aditya Swaro
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Education

Bachelor of Sciences, Neuroscience

University of British Columbia
GPA: 3.97/4.00 (92.3%)

Sep 2021 - Present

Research Experience

Research Assistant

Cembrowski Lab, UBC Vancouver

- Analyzing Visium spatial transcriptomics datasets using PCA, UMAP, and knn clustering (R programming language)
- Developed TBISeq: a web portal to host the transcriptomics analysis as an easy-to-use resource for researchers (RShiny, CSS, HTML, and JS)

May 2023 - Present

Research Assistant

Hacihaliloglu Lab, Department of Radiology, UBC

- Conducted and wrote a literature review on 1) the use of point-of-care ultrasound in detecting brain disease (PD, AD), and 2) the use of intraoperative ultrasound for neurosurgery

Sep 2022 - Present

Awards/distinctions/scholarships

SBME Synergy Studentship (\$7500)

School of Biomedical Engineering

- Awarded \$7500 over 16 weeks as a student researcher at the Life Sciences Institute.

Apr 2023

Trek Excellence Scholar (\$1500)

University of British Columbia

- Awarded \$1500 for placing in top 5% of faculty (GPA-based).

Aug 2023

2nd Place - Invited Talk (\$200)

School of Biomedical Engineering, UBC

- Placed 2nd out of 7 total invited presenters in an oral talk to faculty and students on SBME Synergy Research Day.

Aug 2023

Outstanding Second-Year Student Leadership in Neuroscience (\$150)

Undergraduate Program in Neuroscience

- A service/leadership-based award designed to recognize an outstanding leader in our neuroscience program. Awarded to 1 person out of a cohort of 142.

Aug 2023

Top 5 National Finalist

UBC Technology in Medicine Case Competition

- Selected as one of 5 groups across Canada to present as a finalist. Placed top 5.

Apr 2022

Rutherford Scholarship (\$2500)

Alberta Government

- Based on his high school academic merit.

Aug 2021

Science Scholar (x2)

University of British Columbia

- Standing given to students with a 90%+ GPA

May 2022, 2023

Dean's List (x2)

University of British Columbia

May 2022, 2023

Publications

Angela A. Zhang*, Brianna N. Bristow*, **Aditya Swaro***, Mehwish Anwer*, Larissa Kraus, Sarah Erwin, Tara Stach, Cheryl Wellington, Mark S. Cembrowski. Spatial transcriptomics reveals regional, cellular, and molecular dysregulation following traumatic brain injury. In preparation. [* denotes co-first authorship]

Oral Presentations

Using Spatial Transcriptomics to Reveal the Landscape of Traumatic Brain Injury. (2023) SBME Synergy Research Day, UBC. Canada (Invited Speaker - institutional)

Posters

Aditya Swaro*, Brianna N. Bristow*, Angela A. Zhang*, Larissa Kraus, Mehwish Anwer*, Sarah Erwin, Cheryl Wellington, Mark S. Cembrowski. TBISeq: A Spatial Transcriptomics Web Portal to Explore Traumatic Brain Injury in the Mouse Brain. International Initiative for Traumatic Brain Injury Research (**International** - National Institute of Health)

Aditya Swaro*, Brianna N. Bristow*, Angela A. Zhang*, Larissa Kraus, Mehwish Anwer*, Sarah Erwin, Cheryl Wellington, Mark S. Cembrowski. An Atlas of Spatial Transcriptomics Data Following Mouse Brain Traumatic Brain Injury. National Collegiate Research Conference (**International** - Harvard University)

Teaching and Mentoring

Undergraduate Teaching Assistant Sep 2023 - Present

CPSC 103: Systematic Programming and Design

Department of Computer Science, UBC

- Conducting tutorial lessons and office hours on systematic programming design to ~50 undergraduate students across 2 tutorial sections.
- Grading exam and tutorial material.

Peer Tutor Sep 2023 - Dec 2023

BIOL 200: Fundamentals of Cell Biology

Department of Zoology, UBC

- Assist professor during lectures (300 students) by answering student content questions, holding office hours, and grading.

Mentorship Chair May 2022 - Present

Science Undergraduate Society (SUS), UBC

- Running the SUS Mentorship Program, which encompassed ~65 mentors and 150 mentees.

Founder/Chief Editor May 2022 - Sep 2023

The Brain Blast Newsletter, UBC

- Newsletter of the Undergraduate Program in Neuroscience (~300 person mailing list) sharing opportunities, events, and stories for students.
- Incorporated into NSCI 302, where students write popular articles for us to receive 15% of their grade.

Volunteering

VP Academic May 2022 - Present

UBC Neuroscience Association

- Hosting journal clubs, mentorship events, and the Neuroscience Undergraduate Research Conference for undergraduate students interested in neuroscience.

Board Member Sep 2022 - Present

Vancouver Street Soccer League

- Run drop-in soccer games and tournaments for ~70 people in the at-risk homeless community in the Vancouver downtown east-side area.

Powerchair Soccer Coach and Board Member Sep 2022 - Present

Sportability, Vancouver, BC

- Coordinating with a team of 3 coaches for weekly practices for approximately 15 players with neurodegenerative diseases.