

Congratulations 2022 Biochemistry Award Winners and Graduates!

Gold Medal Winners

HSP Biochemistry – Ava Kavianpour



Ava was born in Toronto and was drawn to Western by its beautiful campus as well as the research opportunities in the Medical Sciences program. In her third year, she joined the lab of David Litchfield, and worked on both bioinformatics and wet lab projects, the latter dealing with human osteosarcoma cells. She appreciated the support of the Litchfield lab members, and described her experience in the lab as “amazing”. According to Dr. Litchfield and his lab manager Dr. Laszlo Gyenis, Ava was highly self-motivated and enthusiastic, with a positive attitude that benefitted those around her. Ava supplemented her academic work with extracurricular activities including being a residence and faculty soph, and representing undergraduate students on Schulich’s Strategic Planning Steering Committee. She says that it’s important to enjoy what you’re studying, to try new things that seem interesting, and to take a break to have fun now and then. This fall, Ava will start a Master’s degree in Biochemistry at the University of Toronto, and hopes to attend medical school at some point in the future.

HSP Biochemistry & Cell Biology – Carlijn Rose Louise Van Kessel



Carlijn was born in Vancouver and grew up in London. She chose to attend Western because the Medical Sciences program offered an excellent opportunity to explore her interests in cell biology and medical research. For three years, she was a Faculty of Science and charity soph, and found it incredibly rewarding to work with many wonderful people to help incoming students join the Western community. She says she found success academically by asking questions when needed and seeking meaningful discussions with others who share her interests. Carlijn completed a fourth-year project in the lab of Dr. Silvia Penuela in the Anatomy and Cell Biology Department, studying aggressive glioblastoma multiforme cell lines derived from human patients. Dr. Penuela was impressed by her ability to learn quickly, her maturity, her work

ethic, and her collaborative skills, and was delighted to accept her into the lab as a Master’s student. Carlijn intends to pursue a career in cell biology and cancer research.



HSP Biochemistry of Infection and Immunity – Colette Benko

Colette is originally from Calgary, and came to Western because the Scholar's Electives program allowed her to pursue research throughout her degree. She was impacted by participating in Western's Alternative Spring Break program, travelling to Peru to help implement a soccer program in a small Quechuan community. She also enjoyed applying knowledge from her Biochemistry courses to a project in the Scinapse competition, representing Western at the Scinapse finals and at Harvard's National Collegiate Research Conference. She appreciates the mentorship, challenges, and opportunities provided by her professors at Western. Her fourth-year project was in the lab of Dr. David Heinrichs of the Department of Microbiology and Immunology. Dr. Heinrichs complimented Colette's intellectual curiosity and ability to absorb new information, and predicted that she will do outstanding work as she pursues a PhD in Developmental Biology at Stanford University.



HSP Biochemistry & Cancer Biology – Urvi Patel

Urvi is from Brampton and came to Western because of the variety of specializations available in the BSc program. She was also keen to be involved in a research program, and was attracted by the atmosphere of Western's campus. Her favourite memories at Western include late night study sessions in Thames Hall with friends, working on the Biochem 3381A inquiry project, and celebratory meals after stressful exams. She also appreciated the opportunity provided by the Science Internship Program to develop her skills as part of a professional, in-person work environment during the pandemic. She attributes her success to making full use of resources such as office hours, online forums, and the aforementioned friends who formed a collaborative and supportive group. Urvi's fourth-year research supervisor, Dr. Alison Allan, described her as a "superstar" whose work on the influence of breast-cancer-derived extracellular

vesicles on lung endothelial cells will earn her co-authorship on an upcoming publication. Urvi will remain in Dr. Allan's lab this fall as a Master's student in Anatomy and Cell Biology, continuing her work on breast cancer metastasis.



HSP Biochemistry & Pathology of Human Disease - Shan Grewal

Originally from Brampton, Shan came to Western hoping to complete a dual HBA/BSc degree, but soon decided to focus strictly on the medical sciences. He was drawn to Biochemistry through the introductory second-year course, and was also interested in research topics in Pathology. Shan believes the key to success is to study or work at something that you love. His best experience at Western has been working in the lab of Dr. Caroline Schild-Poulter starting at the end of his third year. He found it a valuable training opportunity and enjoyed the encouragement and support of the lab members. Dr. Schild-Poulter described him as extremely hard-working and organized, with a knack for scientific research. Despite his skill at research, Shan will be starting medical school at McMaster this year, but he hopes to incorporate his passion for research into his career as a medical professional.



HSP Genetics and Biochemistry - Zacchary Fedder

Zachary came to Western from Vancouver because of Western's reputation of combining strong academic programs with a good student experience. Plus, his two sisters did undergraduate degrees at Western, his aunt graduated from Western's law school, and his father completed medical school here. He fondly remembers his residence experience in first year, when he made great friends who helped him feel welcome even though he was far from home. His "secret sauce" for success is hard work, perseverance, and discipline. Zac will be taking a year off from academics, but plans to complete a PhD in synthetic biology or molecular engineering in the hope of starting his own biotechnology company.



HSP Synthetic Biology - Aiden Wilcox

Aiden is from Port Perry, Ontario, and was drawn to Western because of its innovative and flexible modules. He also valued the Scholar's Electives program that enabled him to begin research in synthetic biology in second year. Apart from his research, his most memorable experiences at Western were as a residence don and a PAL learning peer, through which he was able to support and encourage other students. He attributes his success to finding connections between different ideas, and to maintaining a balance between academics and relaxation, mainly through outdoors activities. Aiden is looking forward to enjoying the outdoors and seeing synthetic biology applications in healthcare as he starts medical school at the University of British Columbia this fall.



Major in Biochemistry – Jeffrey Huang

Hailing from Brampton, Jeffrey appreciated the flexibility provided by Western's medical sciences program, which allowed him to study what he loves while deciding on a career path. While he generally enjoyed his studies at Western, he particularly appreciated that the third-year Biochemistry lab course ran in person, which gave him not only the chance to get hands-on lab experience, but also to explore a relatively quiet campus. He was pleased to find underutilized classrooms where he could study in peace, away from the crowded libraries. He is looking forward to applying the knowledge he has gained during his degree to patient care as a nurse, and has been accepted to the Accelerated Nursing program at Western.

Biochemistry Course Award Winners



Litchfield Award – Biochemistry 3381 & 3382 – Sylvia Cheng

These third-year courses cover general topics in the study of the structure and function of proteins and nucleic acids, including a protein inquiry project and an introduction to synthetic biology. Dr. David W. Litchfield was Chair of Biochemistry at Western from 2007 to 2017 and is currently Vice Dean, Research and Innovation at the Schulich School of Medicine and Dentistry. Dr. Litchfield's research is directed toward elucidation of the biochemical mechanisms that control the growth and survival of mammalian cells since defects in these mechanisms underlie many human diseases including cancer, atherosclerosis, neurological disorders and immune dysfunction.



Biochemistry 4410 – Shan Grewal

Fundamental techniques in molecular biology and genomics are illustrated using examples from classic and current literature.



Biochemistry 4415 – Zachary Fedder

The course explores how drugs can be discovered and produced through chemical genetic screening methods and metabolic engineering in microorganisms.



Biochemistry 4420 – Shan Grewal

The course is focused on the detailed physics and chemistry of protein molecules, and how these molecules contribute to biological function.



Biochemistry 4425 – Ava Kavianpour

Students learn about applications of modern analytical and biophysical techniques in proteomics and related analyses, and structural analysis of DNA repair processes.



Biochemistry 4450 – ZeChen (Eric) Wang

The course addresses the mechanisms of tumour development and investigates cancer models and molecular therapies related to the hallmarks of cancer.

Biochemistry 4455 – Fiona Lam

The course focuses on the translation of cancer research discoveries into clinical practice, by integrating students through a community-engaged learning approach involving small student groups that worked on real life projects with community partners.

Rossiter Award for Fourth-Year Project Courses – Shan Grewal



Students complete an independent research project, and communicate their findings in written and oral formats. Dr. Roger J. Rossiter was Head of Biochemistry at Western from 1947 to 1965. Professor Rossiter's research led to knowledge regarding the chemistry and metabolism of the myelin of nerves, with particular reference to the lipid components and the processes of both myelination and pathologic states of demyelination in the nervous system.



Biochemistry 4999 – Ecaterina Cozma

This laboratory course, restricted to students who have already completed a fourth-year research project, consists of further independent research and is intended for students interested in pursuing graduate-level research.

Congratulations to all Biochemistry Graduates!

We wish you all the best as you embark on your future!

2021-2022 Biochemistry MSc Graduates

Megan Chang
Allan Chen
Shane Butler
Tony Huang
Naomi Scherba
Brooke Wile

2021-2022 Biochemistry PhD Graduates

Amanda Berberich
Aisha Freeman
Rachel Lacoursiere
Jeremy Lant
Daniel Giguere
Karen Dunkerley
Sanna Abbasi
Julieta Lazarte
Allison Dilliott

2022 Biochemistry BMSc and BSc Graduates

Akouris, Polycronis Paul
Athwal, Harjot Kaur
Bala, Fatima Isa
Balarajah, Visale
Bartlett, Alexandria Claire
Basilone, Nicoletta Tora
Benko, Colette Erin
Cain, Genele Adailia
Canatan, Aysegul
Carvalhais, Emily
Cozma, Ecaterina
De Jong, Anna Marie
Dhupar, Narisa
DiMambro, Luke Emanuel
Ding, Mutian
Ezzat Agha, Azmi
Files, Katona Elinn
Frankel, Karling Saxton
Grewal, Shan
Haddad, Majd

Hendricks, Kyle Narine
Hubert, Mia
Huong, Jeffrey
Hutter, Megan Danielle
Jiwa, Raihan
Johnston, Tiffany Paula Anne
Kamal, Samuel
Kane, Erica Ashley
Kavianpour, Ava Alessia
Khan, Tabassum Rahman
Lam, Fiona
Luginaah, Nasong Anthony
Ma, Chery
Patel, Darshil Atul
Patel, Urvi Bipinchandra
Ploscaru, Malina Ioana
Pusparajah, Mathusha
Ramezani Bajgiran, Sina
Ratnam, Vandana
Rehman, Iqra

Rittau, Emmeline Ingrid
Roy, Georgia
Schott, Clara Rose
Sharath, Keerthana
Sharma, Shaunik
Siam, Abdelrahman Mohamed Galal
Tennakoon, Rasangi Rashipraba
Thayaparan, Lorelei
Thompson, Olivia Grace
Timcevska, Kristina
Van Kessel, Carlijn Rose Louise
Varghese, Noah
Wang, Cheng Yang
Wang, ZeChen
Wilcox, Aiden James
Wu, Tingting
Yu, Sherine Samantha Calatrava
Zia, Manal