

PETER ZHANG

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Education

Rotman School of Management, University of Toronto
Masters of Business Administration, 2020 – 2022

Leslie Dan Faculty of Pharmacy, University of Toronto
Doctor of Pharmacy, 2017 – 2021

New College, University of Toronto
Honors Bachelor of Science with High Distinction, 2013 – 2017

Leadership & Innovation

3DPPE GTHA, Toronto, Canada
Co-Founder | March 2020 – Present

- Led a team of medical and pharmacy students to organize a grassroots initiative that supplied 25,000 3D-printed face shields to 167 healthcare facilities throughout Toronto and Hamilton during the COVID-19 pandemic
- Established organization infrastructure by recruiting 3D printers, laser cutters, filaments, acetate sheets, and volunteer drivers to support daily productions and operations

New College, University of Toronto, Toronto, Canada
Lead Residence Don | September 2020 – December 2020
Residence Don | September 2017 – April 2020

- Supported over 100 students of diverse backgrounds by actively creating and leading educational and social programs
- Responsible for ensuring a safe and supportive community as a trained CPR, First Aid, para-counselling, non-violent crisis intervention and safeTALK certified personnel
- Conducted nighttime patrols and provide on-call support to ensure student health and safety
- Mentored residents in matters of academics, professional development, and student life

First Year Learning Communities, University of Toronto, Toronto, Canada
Senior Peer Mentor | May 2016 – April 2017
Peer Mentor | September 2014 – May 2016

- Organized and facilitated the training of over 50 upper-year student mentors alongside experienced administrators and staff
- Provided administrative support and feedback to student mentors
- Developed the programming of bi-weekly sessions to enhance academic and career aspects of first-year students
- Collaborated with faculty, staff, and student advisers to budget and coordinate the logistics of sessions

Research Experience

The Reach Alliance, Munk School of Global Affairs and Public Policy, New Delhi, India

Project Researcher | April 2018 – March 2020

- Conducted semi-structured interviews with experts in Canada and India to study polio eradication in Uttar Pradesh and Bihar
- Drafted a successful proposal to the Research Ethics Board at the University of Toronto
- Presented findings at the 26th Canadian Conference on Global Health
- Supervised by: Dr. Anita McGahan & Dr. Joseph Wong

Leslie Dan Faculty of Pharmacy, Toronto, Canada

Project Researcher | September 2019 – January 2020

Lab Assistant | September 2018 – September 2019

- Investigated the role of JMJD6, RBM39 in alternative splicing pathways mediated by the glucocorticoid receptor and the ARGLU1 protein
- Generated human HEK293 cell lines with knockouts of JMJD6, RBM39, and ARGLU1 using siRNA technology
- Responsible for the determination and interpretation of genotyping experiments
- Conducted laboratory techniques including PCR, qPCR, western blot, protein extraction, DNA extraction, RNA extraction, and running electrophoresis gels
- Supervised by: Dr. Florian Le Billan & Dr. Carolyn Cummins

University of York, York, United Kingdoms

Project Researcher, May 2017 – August 2017

- Conducted cell staining, flow cytometry and RNA extraction techniques
- Analyzed data through the FlowJo software and created graphs and diagrams with PRISM GraphPad
- Harvested magnetically isolated monocytes from bone marrow samples
- Investigated monocyte activation in the bone marrow during Leishmania donovani infection
- Supervised by: Dr. Audrey Romano & Dr. Paul Kaye

Temerty Faculty of Medicine, Toronto, Canada

Undergraduate Researcher, September 2016 – August 2017

- Performed qPCR, genotyping, ELISA, and RNA extraction techniques in laboratory experiments
- Harvested bone marrow cells from mice specimens for dendritic cell differentiation
- Investigated biological factors involved in signalling pathways relevant to Crohn's Disease
- Supervised by: Dr. Dave Prescott & Dr. Dana Philpott

Ontario Institute for Studies in Education, Toronto, Canada

Undergraduate Researcher, May 2014 – September 2015

- Collected data from students in elementary schools through the administration of psychometric assessments
- Analyzed quantitative data through the SPSS software to compare acuity in French word reading between bilinguals and multilinguals in Toronto-based French immersion schools
- Supervisor: Dr. Becky Chen-Bumgardner

Professional Experience

Canadian Armed Forces, Toronto, Canada

Project Consultant | July 2020 – August 2020

- Developed a set of protocols to optimize the temporary closure of military pharmacies within bases in Canada and around the world through literature reviews and semi-structured interviews with pharmacy operations experts

Pack4U, Toronto, Canada

Business Development Associate | May 2020 – July 2020

- Provided clinical care with a focus on multiple sclerosis and anxiety to patients by providing pharmaceutical opinions and recommendations in remote medication review appointments
- Developed a proposal investigating the role of telepharmacy and in-home dispensing services in the health insurance industry

Whole Health Pharmacy Partners, Toronto, Canada

Business Development Consultant | October 2019 – March 2020

- Drafted and reviewed two 46-page RFP packages in coordination with lawyers, architects, and experts in pharmacy to acquire two outpatient pharmacy sites
- Successfully advanced the RFP bids to the next phase of evaluation

Southlake Regional Health Centre, Newmarket, Canada

System Technician | June 2018 – August 2018

- Created surgical preference cards in the new MediTech system for the surgical services unit
- Transferred detailed procedure, medication, and item information from the McKesson Horizon Surgical Manager software to the MediTech system
- Inputted implant items kits into the MediTech system utilizing barcode technology

Teaching Experience

University of Toronto, Toronto, Canada

Guest Lecturer | September 2017 – Present

- Lectured in HMB312 (Laboratory in Health and Disease) on the topic of "Microbiology in the Clinical Setting"
- Lectured in NEW106 (Science, Health and Social Justice) and NEW116 (Science and Global Threats) on topics of "Vaccinations and Autism" and "Antimicrobial Stewardship"

Leslie Dan Faculty of Pharmacy, Toronto, Canada

Scholarship of Teaching and Learning Research Assistant | April 2020 – October 2020

- Developed online clinical modules using the "Virtual Interactive Cases" software to prepare pharmacists for minor ailment prescribing

Leslie Dan Faculty of Pharmacy, Toronto, Canada

Pharmacy Lab Teaching Assistant | March 2018 – Present

- Assessed student performance in receiving calls for verbal prescriptions
- Performed the role of the patient during the counselling section of Patient Care Labs

City of Markham, Markham, Canada

Program Instructor | January 2012 – May 2017

- Equipped high school youth with skills in professionalism, teamwork and conflict resolution to prepare students for competency in workplace settings
- Instructed pre-school students in verbal and written French

Clinical Experience

Northwest Telepharmacy Solutions, Toronto, Canada

Clinical Pharmacist Intern | June 2020 – July 2020

- Provided clinical care to patients in the Northern Ontario communities and in long-term care by providing pharmaceutical opinions in remote medication review appointments
- Provided medication review for patients discharged from the Weeneebayko Area Health Authority in Moose Factory
- Developed a proposal investigating the feasibility of a pharmacist-led anticoagulation clinic

University Health Network, Toronto, Canada

Antimicrobial Stewardship Intern | February 2020 – March 2020

- Conducted patient workups and implemented interventions to adjudicate appropriateness of antimicrobial use in the neurological intensive care unit at Toronto Western Hospital
- Developed a proposal investigating the clinical interpretation of blood cultures positive for gram-positive cocci that have yet to be speciated

Sunnybrook Health Sciences Centre, Toronto, Canada

Oncology Pharmacist Intern | January 2020 – February 2020

- Conducted patient interviews to obtain best possible medication histories
- Provided medication counselling for inpatient receiving chemotherapy treatment
- Conducted patient workups to solve drug therapy problems for inpatients in medical oncology
- Presented a seminar on infliximab infusion reactions for immunotherapy-induced diarrhea

Southlake Regional Health Centre, Newmarket, Canada

Critical Care Pharmacist Intern | June 2019 – August 2019

- Conducted patient workups and implemented interventions to solve drug therapy problems for inpatients in the intensive care unit
- Presented a seminar on treatment options for necrotizing fasciitis
- Documented best possible medication histories for patient admissions, transfers, and discharges

Advocacy & Community Contributions

Canadian Society of Hospital Pharmacists, Toronto, Canada

Membership Committee | April 2019 – January 2020

Communications Committee | January 2018 – April 2019

- Organized membership drives to encourage student participation in hospital pharmacy
- Advised communication initiatives involving social media outreach
- Penned pieces to the student body to inform students of hospital pharmacy activities and practices through articles and interviews

Undergraduate Pharmacy Society, Toronto, Canada

Webmaster | April 2018 – April 2019

Class Webmaster | September 2018 – April 2018

- Debugged and modulated PHP scripts to run UPS elections, summer packages sales, semi-formal ticket sales, and auctions for Charity Week
- Administrated databases in SQL with phpmyadmin
- Reviewed new courses and changes to existing courses as part of the Curriculum and Assessment Committee at the faculty

New College Student Council, Toronto, Canada

Speaker | June 2017 – April 2018

Graduating Year Representative | May 2016 – April 2017

Social Director | April 2015 – May 2016

- Chaired meetings of the council and facilitated debate in accordance to the constitution of New College Student Council and Robert's Rules of Order
- Coordinated successful large-scale social events with over 200 attendees
- Managed the recruitment of volunteers, the logistics of events, and the safety of students
- Negotiated terms and conditions with transportation, venue, and photography providers
- Managed and operated on a budget of \$60,000

Mackenzie Health Richmond Hill Hospital, Vaughan, Canada

Information Desk Volunteer Supervisor | June 2010 – May 2017

Emergency Department Volunteer | June 2015 – August 2015

- Trained and supervised student volunteers in providing patient information to visitors
- Transported patient specimens from clinical wards to the laboratory
- Maintained the sanitation of hospital beds in the emergency department

New College Orientation, University of Toronto, Toronto, Canada

General Planning Executive | May 2016 – September 2016

Director of Training & Scheduling | May 2015 – September 2015

Orientation Leader | April 2014 – September 2014

- Facilitated the hiring and training of over 120 student leaders for Orientation Week
- Organized the logistics of large-scale events for the orientation of first-year students
- Developed the curriculum for the training of over 100 student leaders for Orientation Week
- Delegated tasks for student leaders to support the coordination of orientation events

University of Toronto Students' Union, Toronto, Canada

Board of Directors | May 2015 – May 2016

- Elected to sit on the Bursary & Grants committee and the Elections & Referenda Committee
- Appointed to the Executive Director and Deputy Returning Officer hiring committees

Peer Reviewed Publications

Zhang, P.C., Ahmed, Y., Hussein, I.M. et al. Optimization of community-led 3D printing for the production of protective face shields. 3D Print Med 6, 35 (2020). <https://doi.org/10.1186/s41205-020-00089-y>

Non-Peer Reviewed Publications

Zhang, P., & Ahmed, Y. "Cyberchondria: An unexpected side effect of digitizing medical information". *Toronto Star*. Published February 16, 2021, from <https://www.thestar.com/opinion/contributors/2021/02/16/cyberchondria-an-unexpected-side-effect-of-digitizing-medical-information.html>.

Bala, S., **Zhang, P.** "To win against COVID-19, we must put vaccine hesitancy behind us". *Ottawa Citizen*. Published January 4, 2021, from <https://ottawacitizen.com/opinion/bala-and-zhang-to-win-against-covid-19-we-must-put-vaccine-hesitancy-behind-us>.

Daud, A., **Zhang, P.** "Although alarming, mutated strains of COVID-19 are not a cause for panic". *Toronto Star*. Published January 3, 2021, from <https://www.thestar.com/opinion/contributors/2021/01/03/although-alarming-mutated-strains-of-covid-19-are-not-a-cause-for-panic.html>.

Zhang, P., Chan, C., & Ho, C. "Antimicrobial Stewardship in the face of COVID-19". *Hospital News*. Published October 28, 2020, from <https://hospitalnews.com/antimicrobial-stewardship-in-the-face-of-covid-19/>.

Zhang, P. "Naloxone needs to be in hands of as many people as possible". *The Windsor Star*. Published October 4, 2020, from <https://windsorstar.com/opinion/letters/guest-column-naloxone-needs-to-be-in-hands-of-as-many-people-as-possible>.

Zhang, P. "We need naloxone kits in more hands in this opioid crisis". *The Hamilton Spectator*. Published October 3, 2020, from <https://www.thespec.com/opinion/contributors/2020/10/02/we-need-naloxone-kits-in-more-hands-in-this-opioid-crisis.html?rf>.

Zhang, P., & Daud, A. "As pandemic forces change, it's a good time for Canadians to quit smoking". *Toronto Star*. Published September 9, 2020, from <https://www.thestar.com/opinion/contributors/2020/09/09/as-pandemic-forces-change-its-a-good-time-for-canadians-to-quit-smoking.html>.

Zhang, P. "It's time to normalize suicide prevention training at the workplace". *Toronto Star*. Published August 27, 2020, from <https://www.thestar.com/opinion/contributors/2020/08/27/its-time-to-normalize-suicide-prevention-training-at-the-workplace.html>.

Zhang, P., Teo, V., & Khosravani, H. "When COVID-19 meets flu season". *Toronto Star*. Published July 14, 2020, from <https://www.thestar.com/opinion/contributors/2020/07/14/when-covid-19-pandemic-meets-the-flu-season.html>.

Scholarships & Awards

Joan E. Foley Quality of Student Experience Award University of Toronto	April 2021
Guy Genest Passion for Pharmacy Award CAPSI	December 2020
Future of Pharmacy Excellence Award CAPSI	November 2020
Frank Kwiecien Memorial Scholarship Leslie Dan Faculty of Pharmacy	July 2020
James D. Fleck Entrance Award Rotman School of Management	July 2020
COVID-19 Student Engagement Award University of Toronto	May 2020
CSHP External Affairs Student Writing Award Undergraduate Pharmacy Society	April 2020
New College Student Council Leadership Award New College	June 2017
Health Plus Pharmacy Award Mackenzie Health Volunteer Association	May 2017
Terry Buckland Memorial Award University of Toronto	April 2017
Gordon Cressy Student Leadership Award University of Toronto	February 2017
Queen Elizabeth II Diamond Jubilee Scholarship Trinity College	February 2017
New College Council In-Course Scholarship New College	August 2016
Ruth Reiffenstein Memorial Scholarship New College	August 2016
New College 50 th Anniversary Award New College	June 2016