

# Quentin Michalchuk

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**Objective** – Summer Studentship (4 months) in therapeutic resistance in lung cancer at the Lockwood lab

## Education

2018-Present

Currently enrolled at the University of British Columbia. Achieved honors with distinction in High School, alumnus of the Science One program (honors/Dean's List) at UBC, Science Scholar in 2<sup>nd</sup> Year. Currently in 3<sup>rd</sup> year Pharmacology and Therapeutics Bachelor and Master of Management program.

## Relevant (Research) Experience

2018-Present

**Summer Studentship** - Prospective student at Dr. Lim's lab at the Perelman school of medicine for bench paediatric haematologic oncology research (postponed due to COVID). Conducted a 2-year summer studentship (Ongoing) with Dr. Zahra Goodarzi and Dr. Jacqueline McMillan, resulting in a manuscript (to be published) of a scoping review on Parkinson's Disease and Frailty and a work in progress on Suicidality in the Elderly. Presented a research poster on a scoping review on Parkinson's Disease and Frailty at a "A Town Hall on Frailty and Resilience in an Aging Alberta".

**Research Assistant** - (Summer 2019) Research assistant in PEMRAP (Pediatric Emergency Medical Research Associates Program) at the Alberta Children's Hospital Emergency Department. Screened and enrolled patient participants in clinical research, ranging from BIKE (bike accidents) and PRIMED (appendicitis "fingerprints") to KOALA (child traumatic brain injury neuroplasticity) and EPIC (E. Coli antibody) studies.

**Aging Club** - (Summer 2019) A member of the Interdisciplinary Aging Club, where a Work In Progress presentation and a Critical Appraisal of the article "Reduced lateral occipital gray matter volume is associated with physical frailty and cognitive impairment in Parkinson's disease" by Yueh Sheng Chen was presented.

**INSPIRE Program** – (September 2019-May 2020) Research assistant with Dr. Srigley in a project centered around patient, family and visitor hand hygiene on medical-surgical inpatient units at BC Children's and Women's Hospital (BCCH). Drafted a formal report for the implementation of a BCCH campus-wide hand hygiene program

## Course-Acquired (Research) Experience

2018-Present

**Pharmacology** – Knowledgeable in *in-vivo*, *in-vitro* and *ex-vivo* pharmacology techniques and concepts in a variety of model organisms such as rats and rabbits, including therapeutics. Proficient in both written and verbal communication of results.

**Biology/Biochemistry** – DNA extraction, digestion with restriction enzymes, PCR methods and gel electrophoresis. Standardized cloning procedures. Measured the effect on behavior in pillbugs due to osmoregulation by adjusting salinity. Learned the general experimental method as well as presentation skills, proper citation and biostatistics.

**Organic Chemistry** - Analyzed and presented at a conference on Dr. John C. Sherman and Dr. Robert G. Chapman's paper titled "Elucidation of "Twistomers" in Container Compounds". Gained laboratory skills such as interpreting H NMR spectra, double g delta dagger of interconversion, organic chemistry concepts, time management and presentation skills.

**Chemical Kinetics** – Measured the kinetic parameters of chlorella, lead and cadmium and the competition between lead and cadmium in chelating reactions with chlorella powder. Analyzed results from various forms of spectroscopy (like ICPOES or Inductively Coupled Plasma Optical Emission Spectroscopy) and detailed statistical analyses of results. Wrote a manuscript and PowerPoint for presentation. Knowledgeable in many standard chemical procedures

**Chemistry** – Acquired many standard practical lab skills including titrations and report-writing. Able to perform techniques such as UV-Visible Spectroscopy, various titrations, extractions of heavy metals and determining concentration of solvents and solutes using various methods. Knowledgeable in analytical chemistry techniques.

**Atmospheric Science** – Performed a literature search on the effect of chinooks on the environment. Studied mechanisms of chinooks that influence ecological and societal conditions leeward of the Canadian Rockies. Marking TA in ATSC 201, "Meteorology of Storms" (September-December 2020).

## Experience

### Volunteer Experience

2016-Present

Volunteered for 40+ hours at the Mustard Seed shelter providing food for the homeless and 10+ hours at the synagogue teaching and supervising children; Volunteered 30+ hours with PATHS to engage Parkinson's and Alzheimer's patients at Point Grey Hospital; Spent 40+ hours shadowing Emergency Doctors at the Foothills Hospital and in the Axxis Hospital - May 6<sup>th</sup> Radiology, May 7<sup>th</sup> Emergency, May 8<sup>th</sup> Surgery, May 9<sup>th</sup> Gastroenterology; Secretary and treasurer on the Rotaract Club; performed music at senior homes and hospices throughout Calgary and Vancouver

### Leadership Experience

2015-Present

Organizer and Chair of the Model United Nations Security Council. Board member of the B'nai Brith Youth Organization, planning and leading Jewish youth activities on multiple occasions. Vice President, Social Media Coordinator, House Council Events Coordinator and Secretary of Nootka House. Science One Term 1 conference coordinator; Science One Term 2 Session Chair. Fundraised \$1000 US (through GoFundMe) for building a children's school in Pillaro, Ecuador. (December 5<sup>th</sup>-May 2<sup>nd</sup> 2018-19). Planner and participant in the Zero Waste Team's "Waste Audit" (appropriately sorting UBC's waste). Represented 200+ people as temporary Nootka President. On the committee for Microbiology and Immunology Undergraduate Research Symposium in planning and management. Organized and performed solo piano and violin recitals. Volunteered as an Orientation Leader for UBC, running community-building events and fostering inclusivity (May-December 2020)

### Teamwork Experience

2015-Present

Played an important role in many group-oriented activities, like jazz band, choir, symphonic band, orchestra and chamber music, part of downhill and cross-country, orienteering teams; part of Nootka House Council, played in 1<sup>st</sup> tier intramural volleyball. Volunteered in building a school for children in Pillaro, Ecuador (May 14<sup>th</sup>-16<sup>th</sup> 2019). Founded a school choir club. Part of a large team (researcher) developing CPR Kiosks in a club at UBC (September 2019-May 2020).

### Awards/Achievements

2015-Present

**Academics** – University of Waterloo Mathematics Competition School Champion (Silver and Bronze); accepted to all 13 universities applied, with entrance scholarships amounting to a total of over a quarter million dollars (declined); recipient of the Science Scholar award for academic excellence

**Music** – Enrolled in the Academy Music Program for Gifted Musicians for four years; achieved first-class honors with distinction in RCM 10 Piano, just completed ARCT; participated in the Calgary Performing Arts Festival thrice, placing 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> on multiple occasions; many first-prize band placements at festivals across Canada; travelled to Italy to play piano with orchestra in an international competition; played electric violin in an international band in front of thousands at an international convention; multiple music-oriented scholarships

**Athletics** – Provincial, National and North American Nationals Competitor and Awarded 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place multiple times on different occasions for orienteering; earned a gold medal as a member of the Killarney Swim Club for 200 m backstroke

**Certifications** – Completed CPR-C, AED, First Aid, National Lifeguard, Avalanche Safety, WHMIS and Driver's program

### Skills

**Programming** – Course-acquired computer science skills in python

**Time Management** – Gages time use efficiently and effectively when given many tasks

**Motivated** – Determined to achieve success in any field

**Organized** – Able to complete tasks on time and balance rigorous coursework with extracurriculars

**Avid Learner** – Committed to any new tasks given and willing to learn new skills

**Hobbies** – Hobbies include hiking, downhill, backcountry and downhill cross-country skiing and violin

References available upon request

