COOPER KIMBALL-RHINES

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I am a highly motivated undergraduate with formal research experience both in a state and a university lab setting. My research interests lie at the intersection of environmental science and microbiology, specifically bioremediation and biodegradation of pollutants in protected areas.

EDUCATION

SEPTEMBER 2018 – PRESENT

UNDERGRADUATE STUDIES, MCGILL UNIVERSITY

- Final year of studies, expected graduation in May 2021
- Full time advanced standing student with merit scholarship
- Major in Microbiology and Immunology with a 3.63/4.00 CGPA

JUNE 2018

DIPLOMA, HOPKINTON HIGH SCHOOL

- Top 10 graduating students, class rank not disclosed
- 30 qualifying AP credits in sciences, math, and humanities

RESEARCH EXPERIENCE

SEPTEMBER 2020 – PRESENT

INDEPENDENT RESEARCH PROJECT, MCGILL UNIVERSITY

- Supervised by Professor Jinxia Liu
- Designing and testing a database for *in silico* modeling of PFAS pollutant degradation
- Contributing final results to enviPath prediction program
- Authored informal review on PFAS in the environment and will submit final report in December

JUNE 2020 – AUGUST 2020

GRANT FUNDED RESEARCH, NEW HAMPSHIRE FISH AND GAME

- Secured grant funding through a Quebec government program
- Regularly reported to lead state wildlife biologist
- Completed literature review on federal and state threatened plant species *Lupinus perennis*
- Designed eight-year study to assess health of *L. perennis* population in Concord, New Hampshire
- Collected, analyzed, and reported baseline assessment data for head of NHFG Wildlife department
- Presented final report detailing findings to head of NHFG Wildlife department

JANUARY 2020 – APRIL 2020

INDEPENDENT RESEARCH PROJECT, MCGILL UNIVERSITY

- Supervised by Professor Jose Teodoro
- Contributed to project studying regulation of RPTOR, a commonly oncogenic protein
- Skills included site directed mutagenesis, transformation, DNA purification, and cell culture
- Analyzed all collected data and presented report to supervisor at end of term

SEPTEMBER 2018 – APRIL 2020

RESEARCH COURSES, MCGILL UNIVERSITY

- MIMM 212, Laboratory in Microbiology: Final grade of A. Isolated and characterized antibiotic producing bacteria from arctic soil samples
- MIMM 384, Molecular Microbiology Lab: Final grade of A-. Practiced techniques included western blotting, *E. coli* transformation, medical diagnostics, and Bradford assays
- MIMM 385, Laboratory in Immunology: Final grade of A. Practiced techniques included flow cytometry, cell culture, ELISA, and RT PCR
- PPHS 511, Fundamentals of Global Health: Final grade of A. Wrote original manuscript on women's health and the Zika Virus epidemic, submitted for publication to McGill Journal of Global Health

EXTRACURRICULARS

FEBRUARY 2019 – PRESENT

FOUNDER, HOPKINTON STUDENTS FOR 100

- Local chapter of Sierra Club's Climate Students and Ready For 100 campaign
- Organized and mentored small group of high school students
- Interviewed and worked with energy and public policy experts
- Created report on transitioning the Hopkinton School District to 100% renewable energy
- Presented plan to local groups and campaigned for school board vote
- Currently working with town public officials to pass 100% resolution

OCTOBER 2019 – APRIL 2020

RARE DISEASE CASE COMPETITION, MCGILL UNIVERSITY

- Case competition sponsored by Faculty of Science
- Worked in small group to diagnose patient and research treatment
- Created and delivered presentation to experts on determined disease

JANUARY 2019 – APRIL 2019

ICU BRIDGE PROGRAM, MONTREAL GENERAL HOSPITAL

- Volunteer position in ICU of Montreal General Hospital
- Worked as an advocate for visiting friends and family
- Acted as liaison between public and staff of the MGH
- Required knowledge of operational English and French

WORK EXPERIENCE

SUMMERS 2019 – 2020

INTERN, NEW HAMPSHIRE FISH & GAME

- Hired within NH endangered wildlife division state lab
- Involved both lab and field tasks on five ongoing pollinator projects
- Followed protocols for captive rearing of three endangered species
- Collected population analyses and inventoried supporting vegetation for Karner Blue butterflies

CERTIFICATIONS

- Workplace Hazardous Materials Information System 2015 (WHMIS) Certification–Nov. 2019
- Biosafety Certification—Nov. 2019
- Safe Use of Biological Safety Cabinets Certification—Nov. 2019
- Hazardous Waste Management & Disposal for Laboratory Certification—Oct. 2019