

# Kathryn Landry

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## EDUCATION

**North Carolina State University**, Raleigh, NC 2021-Present  
Master of Microbial Biotechnology

**McGill University**, Montréal, QC 2017-2021  
Bachelor of Science (Agr&Env), Honors Life Science GPA: 3.82  
Specialization in Microbiology and Molecular Biotechnology

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## EXPERIENCE

**Teaching Assistant** 2021-Present  
North Carolina State University, Raleigh, NC

- Lead laboratory experiments for undergraduates in General Microbiology (MB352)
- Lecture background information and demonstrate tasks

**Undergraduate Research Assistant** 2021  
Whyte Lab, McGill University, Montréal, QC

- Assisted in the development of a microfluidics microbial activity assay that measures the metabolic activity of active microbes
- Optimized the procedure and extracted DNA from salt crystals from the high arctic

**R&D Laboratory Technician** 2020  
Magnus Chemicals Ltd., Boucherville, QC

- Filtered water samples, cultured organisms, and performed qPCR on the samples to determine *Legionella pneumophila* (*Lp*) presence
- Confirmed *Lp* by screening colonies and performed antibody agglutination tests
- Maintained laboratory equipment, disposed of contaminated samples, and performed sterility tests

**Undergraduate Research Assistant** 2019-2021  
Faucher Lab, McGill University, Montréal, QC

- Constructed a deletion mutant of *Lp* for *lpg0500* and created a complemented strain
- Tested the ability of the deletion mutant to intracellularly replicate in amoeba
- Performed Western Blot to determine expression of *lpg0500*
- Isolated bacterial and eukaryotic organisms from a model cooling tower
- Identified microbial species using PCR, gel electrophoresis, and DNA purification
- Characterized the ability of isolates to stimulate or inhibit *Lp* growth
- Performed biofilm formation crystal violet assay

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## SKILLS AND RECOGNITIONS

**Software:** RStudio, PowerPoint, Excel and Word

**Awards:** Graduated with distinction and honors (2021). Blackwood Convocation Prize in Microbiology. McGill Space Institute Summer Undergraduate Research Scholarship. Jeff Mills Memorial Prize. Varsity athlete (2017-2020).