



# Seminar Series

Winter 2023

Hybrid

Alex 265

Thursday,

April 27

3 – 4pm

## Dr. Jackie Goordial

School of Environmental Sciences, University of Guelph

Left out in the cold: the microbial ecology of cryophilic life



Light refreshments  
will be served

Dr. Jackie Goordial is an **environmental microbiologist**, a CIFAR Global Azrieli scholar in the Earth4D program, and co-organizer of **Polar Impact**, whose mission is to support Black, Asian, Indigenous, people of color, and minority ethnic professionals in the polar research community.

**Microorganisms that are metabolically active and that can replicate at sub-zero temperatures exist in cryoenvironments nearly ubiquitously on our planet.** This talk will discuss **Canadian Arctic permafrost** where cold-adapted microbiota are thriving, with potential implications for our entire planet. I will also discuss **arid, Antarctic permafrost** settings, where the limits of active microbial life are being encroached upon. Finally, I will touch on how an increased understanding of cryophilic lifestyles on Earth will also help inform how (and where) we look for **potential microbial life** on cold planetary bodies in our solar system such as **Mars, Europa, and Enceladus.**