## **Biology Seminar**



12:30 - 1:30 pm Friday, March 10, 2023 BGS 0165

> **Patrick Lajoie** Associate Professor Department of Anatomy and Cell Biology Schulich School of Medicine and Dentistry Western University

## Genomic approaches to antifungal resistance in the fungal pathogen *Candida albicans*

Fungal infections represent a major public health concern with over a billion infections each year resulting in over 1.5 million deaths. Members of the *Candida* genus, including *Candida* albicans, are opportunistic pathogens that can cause a wide range of severe infections in susceptible populations such as immunocompromised individuals. *Candida* infection (candidiasis) treatment is unfortunately limited to a few classes of antifungal drugs and emergence of resistant strains is a growing public health concern. Our laboratory employs functional genomics to investigate how fungal pathogens regulate expression of genes associated with drug resistance and virulence traits such as the ability of fungal cells to transition from yeast to filamentous growth. Specifically, I will present our work on two important aspects of transcriptional response to cellular stress, the Unfolded Protein Response (UPR) and the control of gene expression by components of the yeast histone acetyltransferase complexes.

