



## Department of Chemistry Seminar Series Fall 2022

Friday, October 14, 2022, 3:30 PM - **HS1 O112 (Health Sciences)**

Host: Jonathan Caranto

**Nitrogen-nitrogen bond formation in natural products biosynthesis**



**Prof. Katherine S. Ryan**

Department of Chemistry, The University of British Columbia, Vancouver, British Columbia, Canada

Natural products with nitrogen-nitrogen (N-N) bonds constitute a group of bioactive molecules with diverse functional groups, including hydrazines, nitrosos, and pyridazines. Diverse pathways have evolved to form N-N bonds, and typical intermediates in these pathways include nitrite, hydroxylamines, and nitric oxide. In this talk, I will discuss our work to elucidate biosynthetic pathways to N-N-bond-containing natural products. Our work employs strategies including microbial genetics, in vitro reconstitution, and structural biology to understand how N-N bonds are made.