

Helen Battle Research Fellowship Seminar



Western
UNIVERSITY • CANADA

3:00 - 4:00 pm
Thursday, March 24, 2022
B&GS 0153 and ZOOM



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The genetic basis of mercury methylation

Mercury is widely recognized as a pernicious pollutant that has far-reaching implications for both ecosystem and human health. The underlying complexity of the cycling of mercury in the environment is less well recognized, with interacting biotic and abiotic factors that lead to the formation of methylmercury; the form of mercury that bioaccumulates and biomagnifies in food webs. This lecture will provide an history of the development of our understanding of the role of bacteria in the formation of methylmercury in the environment from the identification of methylating

strains of sulphate-reducers and the recognition of the importance of in situ methylation in aquatic ecosystems and wetlands, to the latest knowledge about the underlying genetic basis of the methylation pathway.

Supported in part by the Helen Battle Fellowship, our collaborative research with the Smithsonian Institute on the implications of climate warming on mercury methylation using shotgun metagenomics and RNA transcriptomics will be presented.

