

## Real Estate Foundation of British Columbia Partnering Fund Award Results for 2019

Recipient	Project Title and Description
Kazemian Hossein and Ann Duong <sup>1</sup>	<p data-bbox="363 349 1929 406"><b><i>Addressing the Concern of Cyanobacteria Toxin Production in the North: Methods of Prediction, Detection, Quantification, and Management of Microcystins</i></b></p> <p data-bbox="363 414 1929 706">The purpose of this study at the UNBC Northern Analytical Laboratory Services is to provide a comprehensive protocol to deliver an appropriate approach towards maintaining Microcystin-LR concentrations as a whole. To predict whether an algal bloom could cause a toxin overload, qPCR will be used to analyze the abundance of toxin producing gene McyE, HPLC-MS with ELISA will be used conjunctively to detect and quantify Microcystin-LR in the water, and Mn-modified zeolites will be tested for toxin removal. This study could create a pathway for UNBC to provide an affordable health service to Northern BC communities needing to manage their water resources affected by cyanotoxins and algae blooms (which have been linked to liver disease in humans, and numerous livestock and animal deaths). The overall implication from this study is that these techniques could be used as a holistic solution for cyanotoxin poisoned water bodies that are relied on for consumption (humans, plants and wildlife) and recreation (swimming, fishing etc.).</p>

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