# Responsive Polymer-Based Sensors for Bacteria in Water

## PROJECT DESCRIPTION

The Serpe Group has pioneered the development of optical sensors that change visual color in response to a variety of different environmental stimuli and in the presence of certain molecules/species of interest. This project will explore the modification of the sensors for detecting specific bacteria (e.g., E. coli) in water samples. The student will perform a number of experiments to understand how the devices operate and test their performance parameters as sensors.

## FACULTY-DEPARTMENT

Science - Chemistry

## DESIRED FIELD OF (STUDENT) STUDY

Materials Science and Engineering

## INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

## NUMBER OF INTERNSHIP POSITIONS

2

## INTERNSHIP START DATE

As soon as possible

## INTERNSHIP END DATE

12 weeks from start date

## ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.

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Contact: Brendan Cavanagh, Internship Coordinator (Inbound)  
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