

Research Assistant Opportunity Casual Position

Research Assistant in Oilsands Microbiology

Position start date: Aug 12, 2023

Overview: Bacterial biosensor development and testing for detecting organic contaminants in oilsands wastewater.

Specific activities include, but are not limited to:

This project utilizes whole cell bacterial biosensors for the detection of organic compounds (naphthenic acids and others) in tailings ponds wastewater. We have existing biosensors but may develop others using synthetic biology to print pollutant inducer promoter sequences and clone them as transcriptional lux reporters on plasmids using Gibson assembly.

The primary job duties for the field research assistant (RA 3) will include performing basic microbiology experiments in a level 2 biosafety laboratory at the University of Calgary. In addition to experimental work, the position will require some familiarity with lab management (ordering, biosafety, chematix administration). The work will require some method development in organic extraction of naphthenic acids, but also molecular biology, and protein-analyte biochemistry (mass spectrometry) experience would be helpful. Experimental troubleshooting is necessary in the case of new method development. Candidates with data analysis experience and manuscript writing will be preferred.

The successful candidate will work with, and directly report to, Dr. Shawn Lewenza at Athabasca University. Dr. Lewenza will provide adequate training for the 96 well microplate-based experimental design and data analysis for measuring luxCDABE reporter-based gene expression and genetics/molecular biology methods.

Qualifications:

MSc in Microbiology, Biochemistry or Related Science Field. Experience with high throughput data analysis/graphing and bioinformatics is valuable. Knowledge of oilsands microbiology is essential.

The position is based in Calgary, Alberta at the University of Calgary.

How to apply:

Qualified individuals are encouraged to submit their application by email to Dr. Shawn Lewenza at slewenza@athabascau.ca. Applications should include (as a single PDF file) a brief cover letter that summarizes your skills, interests and experience; a current resume or curriculum vitae; an unofficial copy of your transcript; and the contact information for 1-2 references.

Evaluation of applications will begin immediately and will continue until a suitable candidate is found. All applicants are thanked for their interest in this position; however, only candidates selected for an interview will be contacted.

Athabasca University and the researchers are committed and seek to support equity in employment and research opportunities. We strongly encourage applications from Indigenous people, people of colour, people with disabilities, 2SLGBTQ+ people, women, and other historically marginalized groups. Applicants are welcome, but not required, to self-identify in their letter of application.

For more information on this Research Assistant Opportunity, please contact Shawn Lewenza, PhD at the coordinates below, on or before Aug 5, 2023. Applications will be accepted until Aug 5, 2023 or until a suitable candidate is found.

Shawn Lewenza, PhD
Professor, Athabasca University
slewenza@athabascau.ca

