Brady R. W. O'Connor

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- I posses a passion for science and especially microbiology
- 3.5 years (10 semesters) experience working in scientific laboratories
- Posses a sound knowledge of laboratory practices and applications
- Highly motivated individual and love taking part in current, exciting research
- Proven ability to conduct research independently
- Strong ability to communicate and present results
- Work well both independently and as part of a team

Education

(2011-Present) University of Regina, Regina, Saskatchewan Bachelor of Science, Honours in Biology

(2007-2011) Campbell Collegiate, Regina, Saskatchewan High School Diploma – French Honours

Certificates

(May 2014) Pleasure Craft Operator Licence Transport Canada

(January 2014) WHMIS (Workplace Hazardous Materials Information System) University of Regina

(January 2014) Chemical Laboratory Safety Training University of Regina

(May 2013) Biosafety Level 2 Training *University of Regina*

(January 2013) Autoclave Training University of Regina

Related Experience

(September 2015-Present) Dr. Peter Leavitt Limnology Laboratory/ Dr. Christopher Yost, Dept. of Biology, Univ. of Regina

Honours Thesis (BIOL 498/499)

Topic: Novel qPCR analysis of historical changes in nitrogen fixation and nitrification by microbes during a large shift in the N:P ratio of a hypereutrophic lake in southern Saskatchewan, Canada

Keywords: Limnology, Paleolimnology, Molecular Biology, qPCR, Sequencing, Metagenomics

(May-August 2015) Dr. Peter Leavitt Limnology Laboratory, Dept. of Biology, Univ. of Regina Summer Field Assistant

Duties: Sampling and processing water collected from lakes around southern Saskatchewan. Performing taxonomic identification of zooplankton, extracting and analysing chlorophyll pigments, coring lake sediment, Stream sampling and performing macrophyte surveys. Equipment used includes spectrophotometer, YSI meter, Van Dorn, Secchi Disk, Wisconsin nets, Schindler-Patalas and Tygon tube.

(January-April 2015) Dr. Christopher Yost Laboratory, Dept. Of Biology, Univ. Of Regina Undergraduate Research Course (BIOL 490 BT)

Topic: Characterizing a novel species of the genus Rheinheimera isolated from a freshwater lake Keywords: Characterization, Rheinheimera, Microbiology

(September 2014-Decembre 2014) Dr. Peter Leavitt Limnology Laboratory, Dept. Of Biology, Univ. Of Regina

Laboratory Assistant

Duties: Performing taxonomic identification of zooplankton, sub-sampling water and sediment cores, extraction and processing of photosynthetic pigments for HPLC analysis.

(May-August 2014) Dr. Peter Leavitt Limnology Laboratory, Dept. Of Biology, Univ. Of Regina Summer Field Assistant

Duties: Sampling and processing water collected from lakes around southern Saskatchewan. Performing taxonomic identification of zooplankton, extracting and analysing chlorophyll pigments, coring lake sediment and performing macrophyte surveys. Equipment used includes spectrophotometer, YSI meter, Van Dorn, Secchi Disk, Wisconsin nets, Schindler-Patalas and Tygon tube.

(February 2014) Dr. John Stavrinides Laboratory, Dept. Of Biology, Univ. Of Regina Independent Research

Topic: Using novel single locus targets to determine speciation in *Pantoea* as an alternative to traditional multi locus sequence analysis.

Keywords: Bioinformatics, Genomics, Pantoea, Microbiology

(January-April 2014) Dr. John Stavrinides Laboratory, Dept. Of Biology, Univ. Of Regina Undergraduate Research Course (BIOL 490B)

Topic: Investigating novel inorganic phosphorus compounds as antibiotics

Keywords: Phosphine derivatives, Antibiotics, Microbiology

(September-December 2013) Dr. Christopher Yost Laboratory, Dept. of Biology, Univ. Of Regina.

Undergraduate Research Course (BIOL 396)

Topic: Characterizing bacteria isolated from a freshwater cyanobacterial bloom

Keywords: Characterization, Cyanobacteria, Microbiology

(May-August 2013) Dr. Christopher Yost Laboratory, Dept. Of Biology, Univ. of Regina. Summer Laboratory Assistant

Duties: Sampling and processing environmental water samples to test for the presence of human pathogens. Processing of samples included: DNA extractions, qPCR and running faecal coliform assays.

(January-April 2013) Dr. Christopher Yost Laboratory, Dept. Of Biology, Univ. Of Regina. Volunteer Student

Duties: Aided in general laboratory procedures. This included culturing bacteria, running PCR's, and performing transposon mutagenesis.

Publications

O'Connor BRW, Perry BJ, Yost CK. 2015. Draft genome sequence of Rheinheimera sp. KL1, isolated from a freshwater lake in southern Saskatchewan, Canada. Genome Announc 3(5):e01177-15. doi:10.1128/genomeA.01177-15.

Conferences

(June 2015) Presented a poster at the Canadian Society for Microbiology (CSM) Conference Topic: Genome sequence and characterization of a *Rheinheimera* species isolated from a freshwater lake in southern Saskatchewan

(February 2014) Gave a talk at the Prairie University Biology Symposium Topic: Characterizing Bacteria Isolated From a Cyanobacterial Bloom in a Freshwater Environment

<u>Awards</u>

The Terry Ross Award for Excellence Senior Biology (March 2014)

Committees

(2015-2016) Undergraduate representative of the search committee for the Dean of Science at the University of Regina

Outreach

(September 2014-May 2015) Served as Fundraising Director for the University of Regina Biology Undergraduate Graduate Society.

(May 2013-May 2015) Volunteer every year for the Science Rendezvous at the University of Regina which is a national campaign aimed to promote and get children excited about science.

Languages

English – native language

French – speak fluently and read/write with high proficiency