

## **DR. MEGHAN E. REALE, B.M.SC., PH.D.**

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### **EDUCATION**

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- Ph.D.** Anatomy and Cell Biology, University of Western Ontario  
September 2007 – December 2012, University of Western Ontario  
Visiting scholar, December 2010 – June 2012, University of Michigan  
*Supervisor:* Dr. Michael N. Lehman, Ph.D.
- B. M. Sc. (Hons.)** Bachelor of Medical Sciences, Honors in Biochemistry and Cell Biology  
(*Graduated with High Distinction*)  
September 2003 – May 2007, Departments of Biochemistry and Anatomy  
and Cell Biology, University of Western Ontario
- High School** September 1999 – June 2003, École secondaire Confédération  
French language high school  
Welland, Ontario

### **GRADUATE AWARDS AND RESEARCH FELLOWSHIPS**

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- Canada Graduate Fellowship for Doctoral Studies, Natural Sciences and Engineering Research Council of Canada (NSERC; \$140,000)
- University of Western Ontario Graduate Research Scholarship (\$16,000)
- Schulich School of Medicine and Dentistry Research Scholarship (\$10,000)

### **TEACHING POSITIONS**

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**Adjunct Instructor, Department of Biology** **August 2013 - Present**  
Science Technology Engineering and Math Division  
*St. Clair County Community College* *Port Huron, Michigan*

- Instructed courses in Human Anatomy and Physiology (15 sections to date) and Microbiology, including associated laboratory sections
- Developed and implement effective teaching strategies, rigorous course materials, and online resources to most effectively create student-centered learning environment
- Encouraged student engagement and participation through interactive group activities, class discussions and introducing real-life scenarios to highlight relevance of course materials
- Conducted regular assessments including critical thinking elements to evaluate student comprehension and measure the development of their knowledge base
- Maintained student records, attendance and documentation
- Maintained consistent and reliable communication with students via email and WebStudy messaging as well as flexible office hours' availability
- Successfully completed the Center for e-Learning course for Online Instruction and Course Delivery using the WebStudy LMS

**Adjunct Instructor, Department of Health Sciences**  
*Baker College of Port Huron & Clinton Township*

**September 2013 - Present**  
*Michigan*

- Instructed various biological science courses including Human Anatomy and Physiology, Microbiology, Biology, Biochemistry and Pathophysiology. Most of these courses include hands-on laboratory learning sections separate from course time
- Developed and implemented effective teaching strategies, course materials, and online resources to most effectively create student-centered learning environment
- Conducted regular assessments including critical thinking elements to evaluate student comprehension and measure the development of their knowledge base
- Maintained student records, attendance and documentation
- Maintained consistent and reliable communication with students via email and WebStudy messaging as well as flexible office hours' availability
- Successfully completed numerous professional development training sessions for online instruction and course delivery using the Blackboard LMS

**Secondary and Post-Secondary Tutor, Biology & Health Sciences**      **October 2015 - Present**  
*Math Tutors Plus*      *Sarnia, Ontario*

- Worked effectively and efficiently with students at various learning levels, age groups, cultural backgrounds, and varied academic goals
- Aided with course material understanding using worksheets, activities and online resources tailored to the student's needs
- Assisted with various assignments, laboratory activities and exam preparations
- Communicated with school teachers, parents and college instructors regarding student progress and outlined course learning outcomes
- Coordinate and lead weekly STEM camp for students age 7-12

### **TEACHING EXPERIENCE**

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|---|----------------------------|
| ▪ Anatomy and Physiology, I & II*                       | ▪ Microbiology*            |
| ▪ Anatomy and Physiology for Health Care Professionals* | ▪ Concepts in Microbiology |
| ▪ Pathophysiology*                                      | ▪ Biochemistry             |
| ▪ Biology*  | ▪ Chemistry*               |
|   | ▪ Environmental Sciences   |

(\*) *Courses included laboratory-based teaching sections*

### **HIGHLIGHTS OF SKILLSET**

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|-------------------------------------|---|
| ▪ Curriculum Development            | ▪ Proficiency in Camtasia, Blackboard, WebStudy, Adobe and Microsoft Word |
| ▪ Develop Student Learning Outcomes | ▪ Student Assessment  |
| ▪ Laboratory Coordination           | ▪ Student Evaluation  |
| ▪ Lesson Planning                   | ▪ Syllabus Development  |
| ▪ Multimedia Integration            | ▪ Technology Integration  |
| ▪ Online Instruction                | ▪ Bilingual - French  |
| ▪ Record Keeping                    |   |

## EMPLOYMENT HISTORY

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### **Crew Leader Assistant, Census Canada 2016**

*Statistics Canada*

**April – July 2016**

*Southwestern Ontario*

- Provided administrative support to a Crew Leader and her team of Enumerators.
- Responsibilities included
  - preparing reports and correspondence
  - reviewing census data submitted by enumerators
  - fieldwork as to complement enumerator efforts
  - relaying information from the Crew Leader to the Enumerators

### **Canada Border Services Officer, Bilingual**

*Canada Border Services Agency*

**May 2004 – September 2007**

*Fort Erie Peace Bridge*

- Goodwill ambassador and the first point of contact for the travelling public and commercial importer
- Ensured compliance with all legislative as well as related customs regulations and the immigration laws of Canada.
- Worked both independently and collaboratively in teams to analyze data and information for client services as well as for project and risk management.
- Key responsibilities included
  - Direct interaction with travelers, processing customs documents
  - Conducting interrogations, inspections, examinations and verification of traveler information, goods and conveyances and take enforcement actions when non-compliance is encountered or suspected.
  - Writing reports outlining enforcement actions in regards to the sections of the customs and immigration laws and regulations breached by traveler/commercial operator.
  - First response capabilities with powers to arrest and/or detain individuals suspected of having committed offenses under the various acts of Parliament.

## NOTED PUBLICATIONS AND INTERNATIONAL CONFERENCE PRESENTATIONS

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**Reale, M.E.**, Coolen, L.M., Webb, I.C., Baltazar, R.M., Wang, X. & Lehman, M.N. The transcription factor Runx2 is under circadian control in the suprachiasmatic nucleus and functions in the control of rhythmic behavior. *Public Library of Science (PLoS)*.

Glickman, G., Webb, I.C., Elliott, J.A., Baltazar, R.M., **Reale, M.E.**, Lehman, M.N. & Gorman, M. R. Winter photoperiods increase sensitivity of circadian photoreception. *Journal of Biological Rhythms*, 2012.

**Society for Neurosciences Conference**, The transcription factor, Runx2, is a circadian clock-controlled gene and contributes in the control of rhythmic behaviour. Presented as part of the Sleep and Circadian Biology Data Blitz organized by the NIH National Center on Sleep Disorders Research and the Program

**Douglas Mental Health University Institute (affiliate of McGill University)**, The transcription factor, runx2, is a circadian clock-controlled gene and participates in the control of rhythmic behaviour. Presented as part of the Symposia of Canadian Circadian Rhythms Research (2011).

**University of Western Ontario**, Boneheads Can Keep Time: Runx2 in the Central Circadian Pacemaker. Presented to the Department of Anatomy and Cell Biology (2010).

**University of Michigan**, Boneheads Can Keep Time: Circadian Properties of Runx2. Presented to the Biological Rhythms Seminar Series (2012).

**University of Western Ontario**, Characterization of the Circadian Properties of Runt-related Transcription Factor 2. Presented to the Department of Anatomy and Cell Biology (2012).

## COMMUNITY SERVICE

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**Sarnia Historical Society**

**November 2015 – Present**

*Contact: Emily Potter, Vice-President*

- **Chair. SCITS building preservation committee** is dedicated to raising public awareness and increased public involvement directed towards the preservation of the SCITS building so that it may continue to serve citizens of the city of Sarnia. The committee is composed of a group of citizens promoting a number of proposals, opportunities and potential directions recommended by local business owners, entrepreneurs and concerned citizens to repurpose the SCITS building and auditorium
- **Project Lead.** Developing online education platform, curriculum and lesson plans designed to introduce local historical events, landmarks and figures to students enrolled in the local school boards (K – Grade 12). All materials will be easily accessible for local teachers to reference and download free of charge to complement current history curriculums lacking local historical content. In the near future, we anticipate including local indigenous history as well as providing materials for students enrolled in French and French-immersion schools