### CURRENT RESEARCH OPPORTUNITIES

**Graduate Program:** Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, Neuroscience, Surgery

**Research Cluster(s):** Cell, Stem Cell and Cancer; Imflammation & Cancer

**Supervisor(s):** Dr. Samuel Asfaha

**Keywords:** Stem cells, inflammation, colities and cancer

**Vacancies:** 2

**MSc/PhD or Postdoc Available?:** PhD (4 years)

**Description:** The Asfaha lab’s primary interest is in gastrointestinal stem cells and their role in tissue regeneration and cancer. The lab has been strongly focused on distinguishing amongst the role of various epithelial stem cells in gut healing. We previously demonstrated that cytokeratin 19 (K19) marks a radio-resistant intestinal stem cell population distinct from classical Lgr5+ stem cells. We also discovered a subset of Dclk1+ cells are long-lived and serve as a cellular origin for colon cancer. Thus, our lab is now focused on how does inflammation (i.e. colitis) leads to cancer.

**To Apply:** Applicants must independently apply to the Anatomy & Cell Biology program using the online Western [application portal](https://www.uwo.ca/graduate-studies/apply/), including a clear reference to the supervisor

**Application Deadline:** None at this time

**Contact Information:** Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](mailto:sasfaha2@uwo.ca), for more information about the description/design of the project, you may contact Dr. Asfaha directly: sasfaha2@uwo.ca
CURRENT RESEARCH OPPORTUNITIES

Graduate Program: Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, Neuroscience, Surgery

Research Cluster(s): Cell Biology

Supervisor(s): Dr. Patrick Lajoie

Keywords: Aging, protein misfolding, neurodegeneration, epigenetic, yeast

Vacancies: 3

MSc/PhD or Postdoc Available?: MSc, PhD & Postdoctoral

Description: Failure to properly fold proteins results in loss of protein function and activates stress response pathways that remodel the transcriptome to adapt cells and restore homeostasis. Dysregulation of protein homeostasis is linked to major diseases including Huntington’s disease. We will exploit the yeast system to comprehensively assess how protein misfolding alters transcription/gene expression through chromatin remodeling. See www.lajoielab.com for more details.

To Apply: Applicants must independently apply to the Anatomy & Cell Biology program using the online Western application portal, including a clear reference to the supervisor

Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the Academic Programs Coordinator, for more information about the description/design of the project, you may contact Dr. Lajoie directly: plajoie3@uwo.ca
### CURRENT RESEARCH OPPORTUNITIES

**Graduate Program:** Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, Neuroscience, Surgery

**Research Cluster(s):** Neuroscience/cancer research

**Supervisor(s):** Dr. Matthew Hebb and Dr. Susanne Schmid

**Keywords:** brain, cancer

**Vacancies:** 1

**MSc/PhD or Postdoc Available?:** MSc (2 years) or PhD (4 years)

**Description:** Brain cancer is one of the deadliest cancers and there is currently no cure or disease altering treatment. We are looking for a PhD student or a MSc student with an intention to transfer into a PhD for working on an exciting project that aims to evaluate the potential of impeding brain tumor growth by electrical stimulation through implanted electrodes. The project builds on our previous work using in vitro and in vivo models (rat), as well as computer simulations. For more information, see Di Sebastiano AR, et al., Sci Rep. 2018 May 8;8(1):7301

**To Apply:** Applicants must independently apply to the Anatomy & Cell Biology program using the online Western application portal, including a clear reference to the supervisor

**Application Deadline:** None at this time

**Contact Information:** Questions regarding the application process, or inquiries about the program may be addressed to the Academic Programs Coordinator, for more information about the description/design of the project, you may contact Dr. Susanne Schmid directly: susanne.schmid@schulich.uwo.ca