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. Thomas Appleton MD, PhD, FRCPC

Keywords: Inflammation, macrophages, osteoarthritis, regenerative medicine

Vacancies: 2

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

Description: The Appleton Lab's primary interest is the role of inflammation in joint health and disease, especially osteoarthritis (OA). Dr. Appleton is a Rheumatologist and the lead PI of the Western Ontario Registry for Early Osteoarthritis Knee Study. Using data and human samples from this cohort study, we recently discovered that human knee OA causes failure of CD14+ synovial macrophage function, including the ability to clear dying cells from chronically inflamed tissues. This project will identify the mechanisms leading to OA-related phagocyte dysfunction and treatments to reverse this phenomenon.

To Apply: Applicants must independently apply to the Physiology & Pharmacology 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. Appleton directly: tom.appleton@sjhc.london.on.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, Stem Cell and Cancer; Inflammation & 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 in inflammation (i.e. colitis) leads to cancer.

To Apply: Applicants must independently apply to the Physiology & Pharmacology 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. Asfaha directly: sasfaha2@uwo.ca
<table>
<thead>
<tr>
<th>Graduate Program:</th>
<th>Anatomy &amp; Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Microbiology &amp; Immunology, Pathology &amp; Lab Medicine, Physiology &amp; Pharmacology, Neuroscience, Surgery</th>
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<tbody>
<tr>
<td>Research Cluster(s):</td>
<td>Neuroscience</td>
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<tr>
<td>Supervisor(s):</td>
<td>Dr. Lisa Saksida</td>
</tr>
<tr>
<td>Keywords:</td>
<td>Mouse, neurogenesis, hippocampus, in vivo electrophysiology</td>
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<td>Vacancies:</td>
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<tr>
<td>MSc/PhD or Postdoc Available?:</td>
<td>MSc (2 years)</td>
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**Description:** A postdoctoral position is available immediately under the supervision of Dr. Lisa Saksida at The University of Western Ontario, and in collaboration with Dr. Mark Brandon and colleagues at McGill University, to work on molecular and cellular mechanisms of information storage and neurogenesis in the hippocampus. The work will involve recording neuronal activity using miniscopes and fiber photometry. Prior expertise in studying mouse models, mouse surgery, fiber photometry, in vivo electrophysiology, data analysis using MatLab, Python and R, with advanced mathematical and analytical skills.

**To Apply:** Applicants must independently apply to the Physiology & Pharmacology 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. Saksida directly: lsaksida@robarts.ca