### CURRENT RESEARCH OPPORTUNITIES

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Research Cluster(s)</td>
<td>Cell, Stem Cell and Cancer; Imflammation &amp; Cancer</td>
</tr>
<tr>
<td>Supervisor(s)</td>
<td>Dr. Samuel Asfaha</td>
</tr>
<tr>
<td>Keywords</td>
<td>Stem cells, inflammation, colities and cancer</td>
</tr>
<tr>
<td>Vacancies</td>
<td>1</td>
</tr>
<tr>
<td>MSc/PhD or Postdoc Available?:</td>
<td>PhD (4 years)</td>
</tr>
<tr>
<td>Description</td>
<td>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.</td>
</tr>
<tr>
<td>To Apply</td>
<td>Applicants must independently apply to the Anatomy &amp; Cell Biology program using the online Western application portal, including a clear reference to the supervisor</td>
</tr>
<tr>
<td>Application Deadline</td>
<td>None at this time</td>
</tr>
<tr>
<td>Contact Information</td>
<td>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: <a href="mailto:sasfaha2@uwo.ca">sasfaha2@uwo.ca</a></td>
</tr>
</tbody>
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<tr>
<th>Graduate Program:</th>
<th>Anatomy &amp; Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Microbiology &amp; Immunology, Pathology &amp; Lab Medicine, <strong>Physiology &amp; Pharmacology</strong>, Neuroscience, Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Cluster(s):</td>
<td>Neuroscience</td>
</tr>
<tr>
<td>Supervisor(s):</td>
<td>Dr. Lisa Saksida</td>
</tr>
<tr>
<td>Keywords:</td>
<td>Mouse, neurogenesis, hippocampus, in vivo electrophysiology</td>
</tr>
<tr>
<td>Vacancies:</td>
<td>1</td>
</tr>
<tr>
<td>MSc/PhD or Postdoc Available?:</td>
<td>MSc (2 years)</td>
</tr>
</tbody>
</table>

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

**Research Cluster(s):** Cancer Biology & Biochemistry

**Supervisor(s):** Dr. Gabriel DiMattia Ph.D

**Keywords:** Clear cell cancer of the ovary, epigenetics, hypoxia, transcription

**Vacancies:** 2

**MSc/PhD Available?** PhD (4 years) & MSc (2 years)

**Description:**
Our primary focus is on epigenomic changes associated with autonomous spheroid formation in ovarian clear cell cancer (OCCC). Spheroids are 3D avascular structures responsible for metastasis of all epithelial ovarian cancers. Our goal is to uncover the key H3 epigenetic marks which accompany spheroid formation and which presumably contribute to the transcriptional program that facilitates survival of OCCC spheroids. OCCC spheroids that proliferate in suspension will be used in ChIPseq and RNAseq studies. Our goal is to identify 'epigenome-based drugs' which will kill spheroids.

**To Apply:** Applicants must independently apply to the Biochemistry 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. DiMattia directly: dimattia@uwo.ca
CURRENT RESEARCH OPPORTUNITIES

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

Research Cluster(s):

Supervisor(s): Dr. Andrew Pruszynski

Keywords: neuroscience, touch, motor control

Vacancies: 1

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

Description: We are looking for a graduate student to investigate the peripheral neural organization of neurons that innervate mechanoreceptive end organs in the primate skin and how these are modified over development and skill learning.

To Apply: Applicants must independently apply to the 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. Pruszynski directly: andrew.pruszynski@uwo.ca
CURRENT RESEARCH OPPORTUNITIES

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

Research Cluster(s):

Supervisor(s): Dr. John McGuire

Keywords: blood vessels, Protease activated receptor 2, endothelial cells, transgenic mice, blood pressure

Vacancies: 2

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

Description: Recruiting full-time graduate students to conduct 'wet lab'-based basic science thesis research in the area of vascular and circulatory health with focus on blood vessels and the endothelium. Funded by the Canadian Institutes of Health Research. For a summary of the Project follow the link https://webapps.cihr-rsc.gc.ca/decisions/p/project_details.html?applId=461655&lang=en

To Apply: Applicants must independently apply to the 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. McGuire directly: john.mcguire@schulich.uwo.ca