### 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>
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<tbody>
<tr>
<td>Research Cluster(s):</td>
<td>Cell, Stem Cell and Cancer; Inflammation &amp; Cancer</td>
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<tr>
<td>Supervisor(s):</td>
<td>Dr. Samuel Asfaha</td>
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<tr>
<td>Keywords:</td>
<td>Stem cells, inflammation, colitis and cancer</td>
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<tr>
<td>Vacancies:</td>
<td>2</td>
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<tr>
<td>MSc/PhD or Postdoc Available?:</td>
<td>PhD (4 years)</td>
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<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>
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<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>
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<td>Application Deadline:</td>
<td>None at this time</td>
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<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>
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</table>
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): Molecular, Cellular, Biochemical and Genetic methods

Supervisor(s): Dr. Krishna Singh

Keywords: DNA damage & Repair, Breast cancer genes, Hypertension, Endothelial cell-specific knockout mice, Endothelial function

Vacancies: 1

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

Description: A PhD student position is available for highly motivated individuals with interest in studying role of breast cancer gene BRCA2 and DNA damage & repair in the vascular system using a combination of molecular, cellular, and genetic (endothelial cell-specific BRCA2 knockout mice) approaches. Our hypothesis is that loss of BRCA2-mediated repair of DNA damage causes endothelial dysfunction and thus, promotes cardiovascular diseases.

Basic Qualifications:
- MSc/PhD in biochemistry, genetics or a related discipline
- Experience in cell culture, immunoblotting, qPCR and mouse genetics/handling.

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. Singh directly: krishna.singh@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): qPCR, immunoblotting, immunohistochemistry and mouse handling

Supervisor(s): Dr. Krishna Singh

Keywords: DNA damage & repair, Breast cancer genes, Doxorubicin, Endothelial cell-specific knockout mice, Heart

Vacancies: 1

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

Description: A MSc student position is available for highly motivated individuals with interest in studying role of breast cancer gene BRCA2 and DNA damage & repair in the vascular system using a combination of molecular, cellular, and genetic approaches. Our hypothesis is that loss of BRCA2-mediated repair of DNA damage exacerbates doxorubicin-associated DNA damage and promotes heart failure.

Basic Qualifications:
- BSc in biochemistry, genetics or a related discipline
- Preferably with experience in cell culture, immunoblotting, qPCR and mouse handling

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. Singh directly: krishna.singh@uwo.ca