

Supervisor Contact Information	Research Project and Supervisor Preferences/Student Requirements
Dr. Shabnam Asghari Family Medicine Email: <a href="mailto:Shabnam.Asghari@med.mun.ca">Shabnam.Asghari@med.mun.ca</a>	<p><b>Research Project: Primary Healthcare, Rural Medical Education, Healthcare Innovation</b></p> <p>The team at the Centre for Rural Health Studies (CRHS) works to build capacity for rural health research. As part of this, faculty on the team work with rural physicians to develop new research ideas and facilitate their research projects. Students, with directed supervision, may assist with a number of related duties, including completing literature searches, writing/drafting, and performing data analysis, as required.</p> <ul style="list-style-type: none"> <li>• Interested in students in the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> year of their program with a background in art and design, kinesiology, psychology, neuroscience, sociology, social work, nursing or geography (GIS). Will give consideration to students from other fields as well.</li> <li>• Students must be good writers. They will assist with KTE activities including infographics, pamphlets, and other course materials.</li> <li>• Students should have some experience with the research process and scholarly writing. This could come from coursework.</li> </ul>
Dr. Renelle Butt Family Medicine Email: <a href="mailto:renellebutt8@gmail.com">renellebutt8@gmail.com</a>	<p><b>Research Project: Primary healthcare, rural research, physical activity</b></p> <p>This project is in the development stage and will be focused on preparing a knowledge translation document about getting physically active with some specifics to the CBN area. The student would be involved in literature searches, administrative work, and other activities as required.</p> <ul style="list-style-type: none"> <li>• Interested in students of any background; however, students studying the core sciences, nursing or kinesiology would be preferred. Student must be in their 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> year of their program.</li> <li>• The student must be a good writer, capable of performing literature searches and working independently.</li> <li>• Students should have some experience with the research process and scholarly writing. This could come from coursework.</li> </ul>
Dr. Jessica Esseltine BioMedical Sciences Email: <a href="mailto:jesseltine@mun.ca">jesseltine@mun.ca</a>	<p><b>Research Project: Understanding NL heart disease using patient stem cells</b></p> <p>Newfoundland and Labrador (NL) is home to hundreds of patients with mutations that cause heritable heart disease. We take skin samples from these patients and "reprogram" them into stem cells. These stem cells can then become any type of cell, including heart cells. In this way, we can investigate what is wrong with patient hearts without actually</p> <ul style="list-style-type: none"> <li>• Students in Biochemistry or Biology preferred. Student must be in their 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> year of their program.</li> </ul>
Dr. Graham Fraser BioMedical Sciences Email: <a href="mailto:graham.fraser@med.mun.ca">graham.fraser@med.mun.ca</a>	<p><b>Research Project:</b></p> <p>Projects will involve in vivo microvascular studies on the dynamic regulation of blood flow in response to endogenous metabolic stimuli.</p> <ul style="list-style-type: none"> <li>• 3<sup>rd</sup> or 4<sup>th</sup> year preferred but 2<sup>nd</sup> year considered from any program of study: Biology, Biochemistry, Engineering, Kinesiology, Physics, Mathematics, etc. are all suitable.</li> <li>• A basic science background is all that is required.</li> <li>• Prior research experience is not necessary but animal handling and general lab experience is an asset. Training for summer students in all areas needed for their project will be provided.</li> </ul>
Dr. Curtis French BioMedical Sciences Email: <a href="mailto:curtis.french@med.mun.ca">curtis.french@med.mun.ca</a>	<p><b>Research Project: Animal models or human disease</b></p> <p>Students will work with zebrafish that have mutations that correspond to human disease. Such models include hemorrhagic stroke, deafness, epilepsy, and glaucoma. Students will learn microscopy and DNA genotyping techniques.</p> <ul style="list-style-type: none"> <li>• Students who have completed a minimum of 2 years of undergraduate work from any program are acceptable.</li> <li>• Prior research experience is not necessary but completion of undergraduate courses with a laboratory component would be considered an asset.</li> </ul>
Dr. Wendy Graham Family Medicine Email: <a href="mailto:wendy.graham@med.mun.ca">wendy.graham@med.mun.ca</a>	<p><b>Research Project: Primary Healthcare, Rural Medical Education, Healthcare Innovation</b></p> <p>The team at the Centre for Rural Health Studies (CRHS) works to build capacity for rural health research. As part of this, faculty on the team work with rural physicians to develop new research ideas and facilitate their research projects. Students, with directed supervision, may assist with a number of related duties, including completing literature searches, writing/drafting, and performing data analysis, as required.</p> <ul style="list-style-type: none"> <li>• Interested in students in the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> year of their program with a background in art and design, kinesiology, psychology, neuroscience, sociology, social work, nursing or geography (GIS). Will give consideration to students from other fields as well.</li> <li>• Students must be good writers.</li> <li>• Students should have some experience with the research process and scholarly writing. This could come from coursework.</li> </ul>

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Dr. Michiru Hirasawa BioMedical Sciences Email: <a href="mailto:michiru@mun.ca">michiru@mun.ca</a>	<p><b>Research Project: Effect of chemotherapy drugs on brain functions</b></p> <p>Chemotherapy is common, effective cancer treatment. However, its neurotoxic side effects can be debilitating, often affecting treatment efficacy and quality of life of patients. Understanding the mechanisms is paramount for developing therapeutic strategies for these neurological adverse effects. To this aim, we use a mouse models to study the chemotherapy effects on the brain and behavior, and test potential treatments to lessen the adverse effects.</p> <ul style="list-style-type: none"> <li>• We are looking for a student with strong interest in biomedical research; professionalism; good communication skills; and research experience in relevant field of study is an asset but not required.</li> </ul>
Dr. Jo-Anna Hudson Medicine - Pediatrics Email: <a href="mailto:Joanna.hudson@easternhealth.ca">Joanna.hudson@easternhealth.ca</a>	<p><b>Research Project: Moderate and late preterm infant outcomes in Newfoundland and Labrador</b></p> <p>Completing provincial epidemiology database moderate and late preterm infants and sourcing specific chart review for quality improvement initiatives. Work would include chart review and data entry.</p> <ul style="list-style-type: none"> <li>• Students with a science interest who have completed 2 years of their undergraduate degree preferred.</li> <li>• Prior research experience not necessary.</li> </ul>
Dr. Kyla Huebner Medicine - Orthopedic Surgery Email: <a href="mailto:kyla.huebner@easternhealth.ca">kyla.huebner@easternhealth.ca</a>	<p><b>Research Project: Validation of rabbit model of pilon fractures</b></p> <p>Help design and create a jig to create pilon fractures in rabbit limbs.</p> <ul style="list-style-type: none"> <li>• Engineering students preferred but not mandatory. Design of mechanical jig skill set required.</li> <li>• No prior research experience required.</li> </ul>
Dr. Qutuba Karwi BioMedical Sciences Email: <a href="mailto:gutuba.karwi@mun.ca">gutuba.karwi@mun.ca</a>	<p><b>Research Project: Cardiovascular metabolism</b></p> <p>The failing heart is an engine out of fuel. This project will focus on understanding why the failing heart runs out of fuel to generate its power and whether we can improve fuel use in the failing heart by using different diets or medications. This project includes using animal models, cell models, Western Blots, advanced imaging techniques and other techniques.</p> <ul style="list-style-type: none"> <li>• Students in their 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> year in Biology and Biochemistry preferred.</li> <li>• A science background is required.</li> <li>• Prior research experience is not necessary but curious minds and interest in biomedical research preferred.</li> </ul>
Dr. John Law BioMedical Sciences Email: <a href="mailto:john.law@mun.ca">john.law@mun.ca</a>	<p><b>Research Project:</b></p> <p>Noroviruses, a group of RNA viruses, cause diseases in both humans and animals. Notable examples of these viruses include Norwalk virus, responsible for gastroenteritis in humans. We are interested in using a murine norovirus as a tool to study the virus-host interaction. Our first gene of interest is the viral protease, and our goal is to identify its potential host targets in the cell.</p> <ul style="list-style-type: none"> <li>• Students from the lifesciences (sciences, biochemistry, cell biology, zoology) preferred.</li> <li>• Ideally, student should have completed their 3<sup>rd</sup> year but 2<sup>nd</sup> year is fine.</li> <li>• Prior research experience preferable but not necessary; should be keen on discovery sciences.</li> </ul>
Dr. Teyve Stachniak BioMedical Sciences Email: <a href="mailto:tstachniak@mun.ca">tstachniak@mun.ca</a>	<p><b>Research Project: Neuroscience</b></p> <p>The autism risk gene, Eln1, contributes to absence-like epilepsy in mouse models. We will test whether we can help resolve this epilepsy using different kinds of epilepsy medications: standard anti-epileptics for absence- type seizures and an experimental anti-epileptic targeting Eln1 circuits.</p> <ul style="list-style-type: none"> <li>• Students in a program relating to biological sciences are preferred. Engineering or physics students with an interest in electrophysiology are also welcome.</li> <li>• No previous research experience required.</li> </ul>

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Dr. Laurie Twells Public Health & Applied Health Sciences Email: <a href="mailto:ltwells@mun.ca">ltwells@mun.ca</a>	<p><b>Research Project:</b>            The summer student will support a team of researchers (Principal Investigator, local) across Canada who are working on the World Breastfeeding Trends Initiative Report for Canada (WBTi). This report launched in 2004 helps countries around the world assess the status of progress being made towards achieving the Global Stagey for Infant and Young Child Feeding as it pertains to breastfeeding. The report assesses ten parameters of policy and programs that protect, promote and supporting optimal infant and young child nutrition. The student will help formulate a proposal for funding, conduct a review of Canadian policies and programs and collect information needed for the assessment and help identify gaps in Canada’s policies and programs. This will be the first WBTi report on Canada making it a very exciting project.</p> <ul style="list-style-type: none"> <li>• No specific program is needed as long as the student has the required skillset.</li> <li>• Students who have some experience with research, literature reviews and writing papers/reports.</li> <li>• The student will need to be able to demonstrate initiative, good organization skills and good writing skills.</li> </ul>
Dr. Jacqueline Vanderluit BioMedical Sciences Email: <a href="mailto:jvanderl@mun.ca">jvanderl@mun.ca</a>	<p><b>Research Project: Neural stem cells, nervous system development, neural regeneration</b>            There are two research programs in my lab. In the first project, we are studying the acute effects of ischemic stroke on neuron survival. In the second project, we are studying how changes in cell metabolism impact cell fate decisions in nervous system development.</p> <ul style="list-style-type: none"> <li>• Prefer students with a strong background in biology, biochemistry and/or behavioral neuroscience.</li> <li>• Students should have WHIMIS and basic laboratory safety certification. No specific skills required – just a willingness to learn.</li> <li>• Prior research experience is helpful but not required. All students are welcome and will be trained.</li> </ul>
Dr. Anil Zechariah BioMedical Sciences Email: <a href="mailto:azechariah@mun.ca">azechariah@mun.ca</a>	<p><b>Research Project: Vascular Biology/Neuroscience</b>            My lab investigates blood flow regulation in the brain during health, aging and disease (stroke), by utilizing in vitro and in vivo modules of human disease, molecular biological techniques and histological methods. Our research aims to identify novel therapeutic targets that will benefit patients suffering from stroke and other neurological diseases.</p> <ul style="list-style-type: none"> <li>• Preference will be given to students from biological sciences.</li> <li>• Students with experience in western blotting and/or histological techniques preferred.</li> <li>• Students in their 2<sup>nd</sup> or 3<sup>rd</sup> year but 2<sup>nd</sup> year will be considered.</li> <li>• Experience with the previously listed research skills is preferred.</li> </ul>