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| **Applications will be accepted from:** [x]  Both MD & non-MD Undergraduates [ ]  MD undergraduate students only [ ]  non-MD undergraduate students only |
| **Project Duration:** [ ]  Suitable for either a 4 or 8 week project (Only Yr 3 MD students are eligible to apply for 4-week projects) [x]  Only suitable for an 8-week project [ ]  Only suitable for a 4-week project  |
| **Additional information for potential student partners:** E.g. desired skills/interests/experience, scheduling restrictions for the project timeline, additional info you want applicants to provide when contacting you about this position, etc.      |

## PROJECT INFORMATION

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| **Project Title:**Incidence and Characteristics of Chronic Pain After Cardiac Surgery       |
| **Hypothesis or Research Question being addressed (400 character limit, ~55 words):**1. In patients undergoing cardiac surgery with sternotomy (“open heart surgery”) at our hospital, what percentage of patients have acute pain and chronic pain?
2. Secondary research questions:
	* What is the longitudinal trajectory of pain and secondary outcomes for sternotomy patients for up to 12 months post-sternotomy surgery?
	* How do demographics and clinical characteristics differ between patients who develop chronic pain after cardiac surgery and those who do not?

Does the severity of acute pain correlate with the presence of chronic pain post sternotomy surgery at each time point up to 12 months post-surgery?       |
| **Keywords:** **Provide approximately 5 key words that describe the proposed research project.**Prospective, observational, cardiac surgery, chronic pain |

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| **Project Attributes and Benefit to the Student**Please review the [online adjudication criteria](http://www.med.ubc.ca/current-learners/summer-student-research-program/adjudication/) carefully prior to completing the next two sections to ensure your application is addressing the adjudication criteria outlined in “Project Attributes and Benefits to the Student”. |
| **A) Background and Summary of Proposed Research. Summarize the proposed project including the rationale for the project, the context within the relevant field of research, the proposed research approach and the expected project outcomes.** *If this is an ongoing project of >8 weeks duration (or 4 weeks for MD 2022 students) clearly distinguish the expected project outcomes at the end of the FoM SSRP funding period from the overall project objectives.* **Please write in lay terms for a non-specialist audience.** **Character Limit: 3050 characters (~430 words)**The burden of chronic pain after cardiac surgery is significant but poorly understood. Previous studies in this area have estimated an incidence of post-surgical chronic pain ranging from 10-55%. Predicting who will or will not go on to experience chronic pain after open heart surgery is also poorly understood. Our hospital is the Centre of Excellence for cardiac surgery in Fraser Health Authority. Our service is growing exponentially. We want to better understand the baseline incidence of chronic pain in our patient population so that we can, in subsequent studies, better tailor interventions and power future studies.The project has passed ethics approval (FHA and UBC) and about to enter the stage of enrolling patients. We will enroll all consenting open heart surgery patients at Royal Columbian Hospital and follow them with monthly pain and functioning questionnaires for 12 months postop. Power analysis has shown that we will need to enroll 240 patients. Given our current number of daily open heart cases and allowing for some patients’ refusal to participate, we expect it will take 6 months to enroll 240 patients. We are following patient outcomes monthly for a 12-month period after their surgical date. Therefore, this study will be ongoing still at the end of summer 2024.  |
| **B) Outline the student’s role in the project and describe how they will benefit from their involvement.** This section must address how involvement in this project will help the student gain an understanding of how high quality research is conducted. This includes addressing the opportunities to learn new skills in the context of the relevant learning objectives listed in the [adjudication criteria](http://www.med.ubc.ca/current-learners/summer-student-research-program/adjudication/); their anticipated interactions with other researchers and the available resources that will contribute to a beneficial experience.*Clearly indicate which items will be completed during the FoM SSRP funding period and which (if applicable) will be completed before or after the funding period if the student and supervisor have chosen to also work together outside of the funding period. Project feasibility is considered during the adjudication process; 4-week and 8-week projects will be adjudicated separately, with appropriate consideration given to each.***Character Limit: 3800 characters (~540 words)**The student will be responsible for all day-to-day study activities, specifically: participant identification by scanning surgical waitlists, OR bookings, and cardiac triage lists, collecting informed consent and participant enrollment, administration of baseline and postoperative study questionnaires, data collection through chart reviews, and data entry. Enrollment is expected to take 6 months and will begin soon. Depending on how long it takes to enroll 240 participants, and the availability of the student after the enrollment period, there may be opportunities to summarize the research findings, assist in manuscript preparation, and prepare an abstract and/or poster and presentation of results to the scientific community.  |

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| **Please indicate if your project requires the following and indicate their status as appropriate.** This will help clarify the scope of the project for potential student partners. |
| **This project requires ethics approval (human or animal):**[x]  Yes [ ]  NoIf yes please indicate if you:[x]  Already have approval [ ]  Will obtain approval before the SSRP funding period [ ]  Intend for ethics application to be a focus over the funding period\*Please note that as ethics approval can be a lengthy process it is recommended that this be obtained well in advance of the funding period unless the intention is for this activity to form a major part of the FoM SSRP-funded portion of the project.**This project requires access to electronic medical records:**[x]  Yes [ ]  NoIf yes please indicate if you: [x]  Already have approval [ ]  Will obtain approval before the SSRP funding period [ ]  Plan to obtain approval during the SSRP funding period**This project requires operational/institutional approval:**[x]  Yes [ ]  NoIf yes please indicate if you: [x]  Already have approval [ ]  Will obtain approval before the SSRP funding period [ ]  Plan to obtain approval during the SSRP funding period |

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| **Research Location (As applicable, indicate where the project will be conducted.)** |
| City or Region: New WestminsterResearch Centre: UBCHospital: Royal Columbian HospitalProgram or Unit: Cardiac Program, Cardiac ICU, Cardiac Postoperative WardAdditional information (building, lab etc.):       |
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| **Supervisor’s Information** |
| **Supervisor Last Name:** Hodgson | **Supervisor First Name:** Alyssa |
| **FoM Department/School (Main FoM Appointment):** Department of Anesthesiology, Pharmacology and Therapeutics, UBC | **UBC FoM Division (if applicable):**      |
| **Preferred contact method (for students)****[ ]** Phone supervisor**[ ]** Email supervisor | **[ ]** Phone alternate contact**[x]** Email alternate contact |
| **Preferred Phone:** 778-230-2882 | **Supervisor Rank (Instructor, Professor etc.):**Clinical Instructor |
| **E-mail Address:** dr.alyssahodgson@gmail.com      |  |
| **Optional Alternate Contact** (e.g. co-supervisor, research/lab coordinator, assistant etc.) |
| **Contact’s Name:** Michelle Mozel | **Contact’s Role:** Research Coordinator      |
| **Contact’s Phone Number:**604-724-2697 | **Contact’s E-mail Address:** **michelle.mozel@fraserhealth.ca**      |