# Comprehensive Research Experience for Medical Students (CREMS)

## 2022 Supervisor and Project Information Form

Please complete and return via email ONLY to crems.programs@utoronto.ca by **February 18, 2022**.

### Supervisor Information

*NOTE: CREMS will not support pre-determined pairings of students and supervisors. Supervisors must agree to open their projects to all students and interview all that are interested.*

<table>
<thead>
<tr>
<th>Name:</th>
<th>Ahmed Kayssi</th>
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</thead>
<tbody>
<tr>
<td>Email:</td>
<td><a href="mailto:Ahmed.kayssi@sunnybrook.ca">Ahmed.kayssi@sunnybrook.ca</a></td>
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<tr>
<td>Department:</td>
<td>Surgery</td>
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<tr>
<td>Hospital/Research Institution:</td>
<td>Sunnybrook</td>
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<td>SGS Department(s) (if applicable):</td>
<td>IMS</td>
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<tr>
<td>ORCID ID (see <a href="https://orcid.org/">https://orcid.org/</a> - If you do not have an ORCID ID we encourage you to sign up for one):</td>
<td>N/A</td>
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<tr>
<td>Location of Work:</td>
<td>Remote, or Sunnybrook if allowable</td>
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<tr>
<td>Field of Research (up to 4 keywords):</td>
<td>Wound Care, Vascular Surgery</td>
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<tr>
<td>Student contact time (number of hours per week YOU are available to the student for any concerns or to review progress):</td>
<td>4 hours twice per week, and as needed</td>
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Project Information

NOTE: If this project is selected, this information will be posted on CREMS website for interested student applicants to view research opportunities.

PROJECT TITLE:
Evaluating the Efficacy of an Online Learning Module to Increase Wound Care Theoretical Knowledge Amongst Medical Students

PROJECT DESCRIPTION:
Including background, aim(s), methodS and significance of the project. Maximum 300 words.
Chronic wounds represent a major healthcare burden in Canada. The total direct-care cost of diabetic foot ulcers alone was $547 million in 2011. Despite this, medical trainees at the University of Toronto (UofT) report a paucity of wound care education and a lack of confidence with wound management. Indeed, several studies have shown that medical students in the United States and elsewhere are inadequately trained in wound care. Wound care is a critical component of any medical or surgical specialty and medical trainees would benefit from wound care knowledge for their training, exams, and general future practice.

AIMS
An online wound care education module has been developed by a team of wound care specialists. The aim of this project is to assess the effectiveness of the module in teaching key concepts of wound care.

Question 1: Does the wound care module increase theoretical knowledge amongst medical students?
Question 2: What are the perceptions of medical students on using the wound care module to teach best practices?

METHODS
We will recruit study participants via an email from the surgery leads at the UofT with a link to the study program. Volunteers will have one month from the emailed invitation to complete the pre-test, module, post-test, and satisfaction survey.

ANALYSIS
We hypothesize that test scores will improve after completing the module. Our primary outcome analysis will be to compare pre- and post-test scores (paired t tests). In evaluating the perceptions of students to the education module, in addition to the satisfaction survey results we will also look more specifically at engagement, time spent on the module and ease of use.

SIGNIFICANCE
An online wound care module shown to be effective in improving theoretical knowledge could be easily incorporated into future medical student training curricula.

Is this project remote-capable (in case of new restrictions) or have an alternative remote option?
☒ Yes, remote capable ☐ No
☐ Yes, alternate remote option. Please specify (100 words max): Click or tap here to enter text.

If human subjects are involved, have the appropriate Research Ethics Board approvals been obtained?
☒ Yes ☐ No ☐ Not Applicable

If yes, please list the application submission date:

Do you expect this work will be published?
☒ Yes ☐ No ☐ Uncertain / Other
Research Environment and Student Roles and Responsibilities

Please be specific as possible. Please describe the research environment, including availability of required facilities/equipment/expertise, supervisor’s experience and mentorship plans. Please clearly outline the student role(s) and responsibilities related to the project, potential educational value, and indicate who will serve as the student’s direct report for daily oversight (PI, PHD student, technician, etc.). Maximum 300 words.

The medical student will be responsible for conducting the study, including communicating with clerkship leads to coordinate recruitment, data collect and analysis, and manuscript preparation. Based on the study findings, it is also anticipated that the content of the wound care module, and possibly the content of the associated quizzes and satisfaction survey might be modified based on subject feedback, scores, and experiences. The student would be involved in revising the wound care module content, which would include liaising with the group of wound care experts involved in developing the online course, using the various content development softwares employed in generating the module, quizzes, and survey, and preparing REB amendment materials if required.

Through this work the student will gain experience in conducting a research study that has the potential to directly impact medical student education in the future. They will learn how to use various tools to develop educational content, and they will establish working relationships with the team of wound care experts within the various specialties, which may help guide the student’s areas of interest and knowledge.

Re. above REB approval question – the REB approval for this work has been obtained (5Apr2021, UofT RIS Protocol # 40719).