



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.

Name:

Dmitry Rozenberg

Email:

Dmitry.Rozenberg@uhn.ca

Department:

Medicine, Respiriology

Hospital/Research Institution:

Toronto General Hospital Research Institute

SGS Department(s) (if applicable):

Institute of Medical Science

ORCID ID (see <https://orcid.org/> - If you do not have an ORCID ID we encourage you to sign up for one):

<https://orcid.org/0000-0001-8786-9152>

Location of Work:

Toronto General Hospital, UHN

Field of Research (up to 4 keywords):

Solid Organ Transplantation; Rehabilitation; YouTube; Exercise Training

Student contact time (number of hours per week YOU are available to the student for any concerns or to review progress):

Will be available to meet with student 1-2 hours per week to address any concerns and review progress.

Can also communicate via email any questions that may arise about the project.



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:

YouTube Videos as a Source of Information for Exercise in Solid Organ Transplant Recipients

PROJECT DESCRIPTION:

Including background, aim(s), methodS and significance of the project. **Maximum 300 words.**

Background: Solid organ transplantation (SOT) is a lifesaving procedure for many patients with end stage organ dysfunction aimed at improving quality of life and physical function. However, the post-transplant effects of extended hospital length of stay, prolonged physical inactivity, and immunosuppression are known to have significant adverse effects on exercise tolerance, skeletal muscle dysfunction, and cardiometabolic risk factors. Rehabilitation post-transplant has commonly been undertaken in facility based programs, but telerehabilitation and online resources have emerged as a promising alternative strategy in the SOT population to mitigate infectious risk during the COVID-19 pandemic and provide greater accessibility. Online resources in the form of YouTube videos have been developed to provide education and instruction on rehabilitation modalities in SOT, but there have been no studies evaluating the content and quality of these online resources.

Aims: The overarching aim of this study is to characterize YouTube resources on exercise training and to assess the content and quality of videos available for SOT recipients.

Methods: We plan to analyze the first 100 unique English videos identified on YouTube by searching “exercise in solid organ transplantation.” To characterize videos, we will abstract information on video upload date, total views, and number of comments. We will assess the online recommendations provided on exercise training with previously established exercise program recommendations endorsed by the Canadian Society of Transplantation. Video quality will be assessed using a validated instrument (DISCERN) for treatment strategies and Global Quality Score. The search, content, and quality review will be performed by two reviewers. We will use descriptive statistics to characterize available YouTube resources and multivariable regression to assess determinants of video quality and content scores, adjusting for geographic location, type of video and SOT group.

Significance: This will be the first comprehensive assessment of online content and quality of video resources on exercise training in SOT recipients. This work will provide important insight to the transplant community on the current state of online video health information on exercise training. Translational work will include presentation at the SOT telerehabilitation consensus meeting in October 2022, journal publications, and dissemination through patient partner organizations.

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 prospective student will have access to TGHRI research seminars and be immersed in hospital medical and research rounds. My research lab is comprised of a full-time research coordinator, kinesiologist, graduate students and several medicine residents and medical students with a focus on exercise training pre- and post-transplantation. The environment will provide the student the opportunity to discuss and share their findings with other team members.

I will directly supervise the student providing 1-2 hours of research support per week as needed. I have experience supervising medical students through CREMS and other summer research programs (6 medical students/3 years). As a Clinician Scientist, I will provide teaching/mentorship on importance of study design, methodology, statistical analysis, and manuscript preparation.

The student will carry out all aspects of this project conducting a search on YouTube of the videos, abstract content and quality from the applicable videos as outlined in abstract, synthesize the content in tables, and draft the manuscript. The student will have the opportunity to present this work at local and national or international conferences. The student will be able to start this project immediately in the summer as no research ethics board approval is required. The project can be carried out remotely.