



Comprehensive Research Experience for Medical Students
Alexandra Yeo Summer Studentship Research Program 2019

Supervisor/Project Information Form

Due February 20 2019 by email to crems.programs@utoronto.ca

Supervisor Name: Dr. Leonardo R. Brandão

Project Title: The Role of Family History to Predict Paediatric Thrombosis

Hospital/Research Institution: The Hospital for Sick Children (SickKids), University of Toronto

Email: leonardo.brandao@sickkids.ca

Field of Research (2 keywords): Paediatric Thrombosis

Department: Haematology/Oncology

School of Graduate Studies Appointment (IMS, LMP, IHPME etc)? Yes (projected to start Summer/2019)

If YES, please name: IHPME; Associate Professor, Department of Paediatrics, (SickKids)

Project Title: The Role of Family History to Predict Paediatric Thrombosis

Brief Project Description (<300 words):

Recently, thrombosis has been recognized as an increasingly prevalent condition in children, particularly in the hospital setting. 1/200 patients admitted to a tertiary paediatric hospital will develop a venous thrombotic event (VTE). Whereas the main culprit related to VTE in children remains the presence of a central venous catheter, a lot of emphasis is given to inherited thrombophilia. Such conditions are often considered risk factors for VTE in children. However, thrombophilia laboratory investigations are expensive and the implications and interpretation of results remain challenging in the paediatric population. Thrombotic family history (FMHx) may serve as a simple and effective tool to predict VTE occurrences.

The primary objective of this study is to assess the predictive ability of a positive FMHx on VTE occurrence. Three groups will be included: patients undergoing US imaging for suspected VTE with positive (Group 1) and negative results (Group 2), and healthy volunteers (Group 3). All three groups will be invited to participate by completing a family history questionnaire. The questionnaire was developed through a systematic search of the literature.

Patients from Groups 1 and 2 will be recruited from an ongoing study that investigates the role of laboratory biomarkers, to predict VTE occurrence. Patients who have participated in the study will be contacted over the phone to offer study participation. Patients/families who agree to participate will complete an online version of the family history questionnaire. In order to recruit healthy children (Group 3), a visit to the Ontario Science Centre (OSC) will be organized over the summer of 2019. Students will be involved with designing and preparing educational material for patients and families to be presented at the visit to the OSC, as well as in the recruitment of volunteers, and administration of the questionnaire at the OSC.