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FACULTY OF MEDICINE



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MEDICAL ALUMNI ASSOCIATION AND CREMS-SPONSORED
DR. ELVA MAY ROWE FUND
INTERNATIONAL HEALTH SUMMER RESEARCH PROGRAM
2017 SUPERVISOR PROJECT INFORMATION FORM

If you wish to act as a Supervisor for a first or second year University of Toronto medical student wishing to conduct a research project abroad between June and August 2017, please complete the below form with as much detail as possible.

PLEASE PROVIDE A COPY OF THE ON-SITE SUPERVISOR'S CV. THIS IS REQUIRED FOR THE ADJUDICATION PROCESS.

****Submit this form to crems.programs@utoronto.ca by the deadline of Thursday January 5, 2017.****

PART A: Supervisor and On-Site Supervisor Contact Information

UofT Researcher:	Dr. Nancy Olivieri
Email Address:	nancy@hemoglobal.org
Telephone:	647-299-6935
Mailing Address:	Toronto General Hospital 200 Elizabeth Street, EN 13-222, Toronto, Ontario Canada M5G 2C4
Department:	Medical Oncology and Hematology
Degree (MD, PhD, MD/PhD):	MD, MA, FRCPC
SGS Appointment/where?:	Dr. Nancy Olivieri
Selected Publications (3 most recent and relevant to the project the student will be working on):	Chakrabarti P, Bohara VK, Ray S, Ray SS, Nath UK, Chaudhuri U. Can the availability of unrestricted financial support improve the quality of care of thalassemics in a center with limited resources? – a single center study from India. Thalassemia Reports 2013; 3; 1 DOI: 10.4081/thal.2013.e2 Olivieri NF, Thayalasuthan V, O'Donnell A, Premawardhena A, Rigobon C, Muraca G, Fisher C, Weatherall DJ. Emerging insights in the management of hemoglobin E beta thalassemia. Ann NY Acad Sci 2010; 1202: 155-7. Premawardhena A, Fisher CA, Olivieri NF, de Silva S, Arambepola M, Perera W, O'Donnell A, Peto TE, Viprakasit V, Merson L, Muraca G, Weatherall DJ. Haemoglobin E beta thalassaemia in Sri Lanka. Lancet. 2005; 366: 467-70.



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Name of On-site Supervisor:	Dr. Prantar Chakrabarti
Location of placement (Name of Institution/hospital; City; Country):	Department of Haematology, Nil Ratan Sircar Medical College, Kolkata (Calcutta) West Bengal, India www.nrsmc.edu.in
Email Address:	haematology@nrsmc.edu.in , prantar@gmail.com
Telephone:	+91 33 24 327 429 (M); +91 94 33 018 899; +91 85 85 816 824
Degree (MD, PhD, MD/PhD):	D.M. (Clinical Haematology) Diplomate of National Board Medicine M.D. (General Medicine) M.B.B.S.
Area of Medicine of the Research Project (2 keywords):	Thalassemia, Global Health

PART B: PROJECT INFORMATION

Project Title (this can be modified later, but we would like to have working title from the start):
Evaluation of complications in children with Hemoglobin E/beta thalassaemia in Kolkata, India.

Provide background information on the project and program/institution; max 500 words:

Thalassemia is an inherited disorder of hemoglobin which, along with sickle cell anemia, is one of the two most common single gene disorders worldwide. Although all major forms of thalassemia impose a huge disease burden worldwide they were, until recently, rarely included in the health priorities of governments or international health agencies. In 2000, the World Health Organization acknowledged that thalassemia is a major global health problem.

Globally, approximately half the clinically important forms of thalassemia result from compound heterozygous inheritance of hemoglobin E and beta thalassaemia, which is very common in Asia and also constitutes an increasing proportion of thalassemia patients in immigrant populations in North America and Europe. Because of its phenotypic instability and remarkable clinical variability, hemoglobin E/beta thalassaemia presents considerable, and unique, management problems. We, and others, have reported complications in affected patients in small populations. These complications include hypersplenism, leg ulceration, pulmonary hypertension, extra-medullary hematopoiesis, and iron loading resulting in cardiac and liver disease, diabetes, delayed growth and abnormal sexual maturation. However, there has been no systematic review of the complications of hemoglobin E/beta thalassaemia in India, which is home to



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most of the world’s patients. Assessment of the extent and severity of complications, and the incidence and age of premature death in children with hemoglobin E/beta thalassemia in West Bengal will lead to testable research hypotheses and we anticipate that this study will lead to publications of importance to public health. In addition, the information we obtain in this study will assist the government of the state of West Bengal in understanding the severity and local impact of this disorder and therefore, we anticipate, lead to provision of additional state-supported resources for affected children.

We propose systematically to assess the complications of hemoglobin E thalassemia in approximately 1500 affected patients managed by Dr. Prantar Chakrabarti, Head, Department of Haematology, NRS Medical College, Kolkata (Calcutta), West Bengal, India. NRS Hospital, which provides out-patient care to 3000 patients per day (average 3,092/day in 2014-15), serves a large (>2000), relatively poor, population of thalassemia patients, 70% of whom have hemoglobin E/beta thalassemia. This is a very dynamic clinical setting, with a potential for wide exposure to patients with major illnesses not limited to thalassaemia, and should provide an opportunity for students to learn from a talented clinician teacher locally recognized for his teaching skills, and his dedication to patients.

Is this project for 1 or 2 students to complete?

1 2

Because of the volume of patients at NRS Medical College and the scope of the project, it would be useful to have two students sharing the work on this project.

How long have you worked with the on-site supervisor and briefly describe your working partnership:

Since 2009, we have consulted on local patients with physicians in Kolkata (Calcutta), West Bengal, India, primarily working with Dr. Chakrabarti, advising and consulting on clinical management and screening in this thalassemia patient population, and providing support for focused research projects. We have together conducted field trips to examine practices of care for thalassemia patients in other parts of India (from 2009 to 2016), and in Bangladesh (in 2012). We have welcomed Dr. Chakrabarti to small group sessions and conferences in Sri Lanka, Toronto and Oxford.

Have you visited the city/town where the medical student will be placed? If yes, when was your last visit?

Yes. Our team’s last visit to Kolkata was in 2014. Our last visit with Dr. Chakrabarti was in November 2016 to northern India where together our clinical and research teams planned several research projects in the setting of an international meeting on thalassemia.

Student’s roles/responsibilities in bullet form (Please be as specific as possible):

- Students should during this time develop a deep and broad understanding of the clinical and laboratory aspects of Hemoglobin E/beta thalassemia including the disease complications and approach to treatment
- Students will accompany Dr. Chakrabarti on regular teaching and clinical rounds and participate in clinics with daily interactions with Hemoglobin E/beta thalassemia patients aged approximately 5-18 years
- The research project will be directed at evaluation of the complications of Hemoglobin E/beta thalassaemia. The total number of patients is approximately 1000 and a subset of patients (possibly the oldest patients) may therefore be selected for study.
- Students will conduct chart reviews to record the primary complications of hemoglobin E/beta



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thalassemia	
<p>Is this project for a specific student, or will you interview and select an interested student who would contact you directly for this opportunity? <i>Note: All supervisor/student applications will be adjudicated by a panel of faculty, given a score, and ranked based on the score given. Funding will be based on ranking.</i></p>	<p><input type="checkbox"/> For a specific student. <u>Name</u> of student:</p> <p><input type="checkbox"/> For whichever student is chosen after interview</p> <p>We would welcome any student for this project. We hope that two can be funded to facilitate the work.</p>
<p>If human subjects are involved, has Ethics been obtained? <i>(Note: Written proof or an email indicating protocol approval may be requested prior to the student's arrival at on-site location)</i></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p>Yes – documents to be provided</p>

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