



uOttawa

Master's Student Research Opportunity in Exercise and Environmental Physiology

The Human and Environmental Physiology Research Unit of the University of Ottawa, home of Operation Heat Shield Canada (www.hepru.ca), is seeking candidates interested in completing a two-year master's studentship. Candidates will have the opportunity to study in one of the world's largest research units dedicated to assessing the impacts of climate change on human health. Candidates will be given the opportunity to design and conduct projects directed at understanding the environmental and human factors affecting human tolerance and health to heat stress in the broader public and workforce.

TRAINING

Candidates will receive extensive training in various areas of focus, which includes training on:

- ✓ The use of different experimental techniques (e.g., intra-dermal microdialysis, whole-body calorimetry) to study the mechanisms and controllers governing the regulation of heat loss in the human system,
- ✓ Evaluating the human heat stress response at the cellular level as defined by the assessment of responses related to autophagy, apoptosis, inflammation and the heat shock response, and includes utilizing techniques such as western blotting to analyze protein content and quantitative real-time polymerase chain reaction to assess transcriptional regulation of these stress response systems during heat stress, and
- ✓ The development of advanced heat management solutions including the creation of technologies to manage and monitor heat strain in vulnerable population groups and workers, and other activities.

Research activities will take place with Dr. Glen P. Kenny and an interdisciplinary team of national and international health scientists and physicians that includes opportunities for engagement with our long-standing public health (e.g., BCCDC, Health Canada, Ottawa Public Health, Toronto Public Health, World Health Organization), and industry (e.g., BBE Consulting, Electric Power Research Institute, Technica Mining, Vale, Workplace Safety North) partners.

Positions are open for September 2023. The successful candidate will have obtained an undergraduate degree in either kinesiology/physiology, health sciences, sciences or a related field. While all candidates will be considered, individuals with a strong interest in exercise, environmental physiology, and/or human health will be given special consideration. This research is highly interdisciplinary and additional training will be provided to ensure the successful candidate develops the skills required to meet their research objectives.

Application Process

Funding support is available. Interested candidates should contact Dr. Glen P. Kenny (gkenny@uottawa.ca). Visit our website at www.hepru.ca for additional information about our research.

