



TRAINING OPPORTUNITY: PhD Student, Post-Doctoral and Clinical Fellows

TITLE OF STUDY: Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea.

INVESTIGATORS: Dr. Marc J. Poulin (Dept. of Physiology & Pharmacology), Dr. Patrick J. Hanly (Dept. of Medicine) and Dr. Todd J. Anderson (Dept. of Cardiac Sciences).

We are looking for a **doctoral student**, a **postdoctoral fellow** in **human cerebrovascular physiology**, and a **clinical trainee** (MD trained in pulmonary/sleep medicine who wants to obtain research training in order to pursue an academic career) who are interested in completing a studentship or fellowship as part of a CIHR-funded project that will investigate the effects of intermittent hypoxia on cerebrovascular, ventilatory and cardiovascular regulation in healthy humans and in patients with obstructive sleep apnea.

These positions will be based in the Laboratory of Human Cerebrovascular Physiology (PI is Professor Marc Poulin) at the University of Calgary. Research activities will take place within the Cumming School of Medicine and in the Sleep Laboratory at the Foothills Sleep Centre under the joint supervision of Dr. Poulin, Dr. Hanly and Dr. Anderson. Responsibilities will include research on healthy human volunteers and in patients with obstructive sleep apnea and experiments in the human physiology and sleep laboratories. The successful candidates will be involved with recruitment, laboratory-based experiments as well as in presentations of the research at local and international scientific meetings and preparation of manuscripts that emerge from this research. Prior experience with techniques in respiratory physiology, including performing overnight sleep studies, ultrasound imaging and biochemistry laboratory techniques (e.g., blood sampling, centrifugation, storage, and assay analyses) will be major assets. However, additional training will be provided to ensure that the successful applicants have the skills required to meet the objectives of the project.

Candidates should have some or all of the following attributes: i) a strong background in integrative human physiology, ii) a working knowledge of MATLAB (The Math Works Inc.), iii) good communication skills (written/spoken English), iv) an excellent academic record, v) a keen desire to learn, vi) previous research experience working with human volunteers and/or patients in a physiology or medical environment, vii) long term goal for an academic career.

More information about our research is located on our website: <http://www.ucalgary.ca/poulin>

Sample publications leading up to this project:

- Beaudin AE et al. COX 1 & 2 differentially regulate blood pressure and cerebrovascular responses to intermittent hypoxia: implications for OSA. *Journal of the American Heart Association* 2014. PMID: 24815497.
- Champod AS et al. Effects of acute intermittent hypoxia on working memory in young healthy adults. *American Journal of Respiratory and Critical Care Medicine* 2013. PMID: 23675727.
- Pialoux V et al. Losartan abolishes oxidative stress induced by intermittent hypoxia in humans, *Journal of Physiology* 2011. PMID: 21930596.
- Foster GE et al. Intermittent hypoxia increases arterial blood pressure in humans through a renin-angiotensin-system dependent mechanism. *Hypertension* 2010. PMID: 20625082.
- Pialoux V et al. Effects of exposure to intermittent hypoxia on oxidative stress and AHVR in humans. *American Journal of Respiratory and Critical Care Medicine* 2009. PMID: 19713446.

Candidates should submit a letter of intent outlining their qualifications and career objectives, an unofficial transcript of academic record, complete list of publications and awards, along with names of 3 referees who have agreed to be contacted. Applications will be accepted until these positions are filled. Funding is secured for 2-years with the possibility of extension for an additional 3 years. Salary will be commensurate with University of Calgary policies.

Send your complete application package to:

Professor Marc Poulin, PhD DPhil
Department of Physiology & Pharmacology, University of Calgary
HMRB-210, 3330 Hospital Drive NW, Calgary AB, Canada, T2N 4N1
or by email to: poulin@ucalgary.ca

