Job Category: Non-Union Technicians and Research Assistants

Job Profile: Non-Union Salaried – Research Assistant /Technician 2

Job Title: Research Technician – HLI MRI Core Facility Technician

Department: MRI Core Facility, Centre for Heart Lung Innovation, Department of Medicine, UBC, St. Paul’s Hospital

Compensation Range: Tech 2 - $45327-$56448

Posting End Date: December 20, 2022

Job End Date: Annual Renewal

This position is located within a health-care facility. Therefore, this position requires successful verification of full vaccination against COVID-19 provided prior to the start date, as required by the provincial health mandate.

The anticipated start date for this position is February 1, 2024. The term is for 1-year with the possibility for annual renewal.

**Job Summary**:

The Centre for Heart Lung Innovation (HLI) is seeking a full-time research technician to support the pulmonary magnetic resonance imaging (MRI) research program and MRI Core facility (<https://www.hli.ubc.ca/our-services/3t-mri/>).

The research assistant will work primarily alongside the MRI Associate Director and within a multi-disciplinary team of physicians, scientists, research coordinators, imaging technologists, students and other hospital/research staff, to support MRI study components of a number of grant-funded clinical studies related to post-COVID-19 syndrome, chronic obstructive pulmonary disease, and other smoking-related lung conditions. Additional MRI studies expanding to other lung or heart diseases may begin at any time.

HLI is a UBC senate-approved Centre located within Providence Health Care’s St. Paul’s Hospital in downtown Vancouver. The MRI Core at HLI was established in June 2021, with a focus on advanced imaging of patients with heart and lung disease. The facility houses a state-of-the-art 3.0T clinical MRI scanner and hyperpolarized 129Xe gas facility for functional imaging of the lungs. HLI is one of two centres in Vancouver and only five centres in Canada with hyperpolarized 129Xe MRI capabilities. To date, the MRI core operates four ongoing clinical studies and has amassed a pulmonary imaging registry including images from >280 research participants.

**Work Performed**:

* Upon successful completion of training, operate 129Xe hyperpolarizer to prepare inhaled xenon gas contrast agent for clinical MRI studies
* Maintain equipment operational records and inventory of relevant laboratory supplies
* Perform confidential clinical data entry for MRI projects in electronic databases
* Perform and maintain imaging data back-up on electronic servers
* Perform quantitative image analysis using established analysis pipelines

Opportunity for further work such as participating directly in data analysis, development of image processing tools and other research projects, towards authorship/co-authorship on peer-reviewed publications, may be possible.

**Minimum Qualifications**:

* Completion of a university degree in engineering, physics, health/life sciences or a relevant discipline, or a relevant technical program
* At least 4 months research experience in a relevant discipline
* Strong organizational, time management and record-keeping skills
* Strong oral and written communication skills
* Ability to learn new techniques and work independently

**Preferred Qualifications**:

Although specific on the job training will be provided and must be successfully completed for 129Xe hyperpolarizer operation and other MRI safety and image analysis aspects, the following skills would be considered assets that would accelerate transition into this role:

* Experience with MRI or other medical imaging modalities
* Experience with Matlab, Python, C or other programming languages
* Experience performing quantitative image analysis
* Experience with REDCap database use and/or management
* Experience writing and submitting research ethics board (REB) or Health Canada clinical study protocol applications