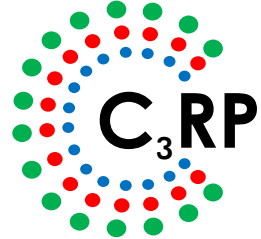


Postdoctoral Associate in Immunology

The Cardiology and Critical Care Research Program ([C₃RP](#)) at the **Robarts Research Institute** is located on the **Western University** campus (<https://www.uwo.ca>) and is connected to the **London Health Sciences Center (LHSC)**. Under the supervision of two principal investigators ([Dr. Aleks Leligdowicz](#) and [Dr. Mark Chandy](#)), the laboratory employs novel multi-“omic” techniques to study biological samples from patients to understand disease mechanisms of [early infection during critical illness](#) and cardiovascular disease.



The main pillars of research are (1) the influence of innate and adaptive immune regulation and endothelial injury on outcomes in critical illness, and (2) the impact of environmental factors on the development of cardiovascular disease using induced pluripotent stem cells (iPSC). Advanced cell culture and gene editing in conjunction with imaging techniques (flow cytometry, microscopy), functional biological assays, and RNA-sequencing address these research goals.

Our lab is seeking a talented and highly motivated postdoctoral associate with expertise in immunological profiling of immune cell phenotype and function. Required skills include work in a biosafety level-2 environment, processing of human samples, advanced ability to work with multicolour flow cytometry, gene editing, and bulk and single-cell RNA sequencing. The ability to perform large-scale statistical analyses of clinical data and their integration with complex biological studies is preferred.

Responsibilities will include performing processing of human whole blood and bronchoalveolar fluid samples, functional cellular assays (including multicolour flow cytometry), gene editing using CRISPR-Cas9, and analysis of RNA sequencing data. In addition, there will be an opportunity to integrate “multi-omics” biological data (proteomics, bulk and single-cell RNA sequencing, epigenomics, metabolomics, and microbiome analysis) with complex clinical variables to identify heterogeneity of treatment effects in complex patient populations.

The successful candidate will engage in supporting C3RP research trainees, contribute to manuscript and grant preparation, and will have the opportunity to interact with local, national, and international experts in bioinformatics.

Start Date: Fall 2023 (flexible)

Duration: 3-4 years

Remuneration: Commensurate with experience

Qualifications:

- Ph.D. in immunology within the past 3 years
- Excellent working knowledge of Flow Cytometry
- Expertise in working with human samples in a biological level-2 laboratory

- Experience with analyzing human and/or bacterial RNA sequencing data
- Advanced understanding of critical care, immunity, infection, and cardiovascular disease
- Proficiency in the English language, including manuscript and grant preparation

Procedure:

- Application package:
 1. CV
 2. 1-page letter of reference
 3. 3 references (email addresses)
- Please submit full application to aleligdo@uwo.ca with the subject "C3RP Postdoctoral Application"