CLSA Approved Project

Applicant
Dr. Elham Rahme, McGill University

E-mail Address
elham.rahme@mcgill.ca

Project Title
Biomarkers associated with infections in Canadians 45-85 years of age with and without diabetes: Analysis of metabolomic, genetic and clinical data from the Canadian Longitudinal Study on Aging

Project Summary
Diabetes affects a large number of middle-age and older Canadians. Infections, particularly pneumonia, flu and urine infections occur frequently and may be more severe in this age group, particularly in those with diabetes. Vaccination protects against flu and pneumonia, but many persons with diabetes do not get the vaccine despite recommendations. Also, some medications used to treat diabetes may increase the risk of urine infections and should be avoided in those at high risk. Hence, it is important to elucidate the factors that may help identify those at high infection risk to better inform preventive measures in those with or without diabetes. Studies have looked at the contribution of unhealthy lifestyle habits, low socioeconomic status, and other health issues to the infection risk. But, none has examined the role of biomarkers (compounds found in the blood). We will address this issue using data of a large national representative group, the Canadian Longitudinal Study on Aging.

Keywords
Infection, Diabetes, Biomarkers, Metabolomic, Genetic, Epidemiology