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Canadian Longitudinal Study on Aging
Étude longitudinale canadienne sur le vieillissement

CLSA Approved Project

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Project Title
Identification of genetic variants associated with sarcopenia: A genome-wide association study

Project Summary
In Canada, 25% of the population is projected to be 65 years or older in 2036. Thus, it is important for us to investigate the physiological consequences of aging and understanding the underlying pathways that result in progression to "sarcopenia" - an age-related syndrome. Sarcopenia is defined as the loss in skeletal muscle mass and physical function with age and is associated with disability, morbidity and mortality. The decline in muscle mass varies from 30-50% over the age of 40 to 80 years. So far, only a few studies have been conducted to identify the genetic variants associated with sarcopenia. In this study, we will perform a genome-wide association study (GWAS) to identify genetic variants associated with sarcopenia. Further, we will use machine learning approach to predict sarcopenia using genetic variants.

Keywords
Sarcopenia, GWAS, Aging