

**Applicant**

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**Project Title**

Exploring the genetic architecture of sleep, loneliness, and personality traits in the Canadian Longitudinal Study on Aging

**Project Summary**

Short sleep duration and poor sleep quality are associated with numerous adverse health outcomes. Loneliness is associated with insufficient sleep duration and sleep disruption, so isolated individuals are especially vulnerable from both social isolation and sleep insufficiency. Personality traits, and more particularly neuroticism, are also associated with both sleep and loneliness. This project will explore the genetic basis for sleep, loneliness, and personality traits by performing genome-wide association studies (GWAS) as well as post-GWAS analyses in the CLSA. We will also explore potential genetic correlations between these traits. Results have the potential to identify individuals who are at the greatest risk of negative health outcomes, contributing to the fields of sleep health and personalized medicine.

**Keywords**

GWAS, Genetic correlation, Sleep phenotypes, Loneliness, Neuroticism