CLSA Approved Project

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Project Title
Gene by psychosocial determinants (G*E) of lifelong wellness and foundational work for longitudinal geo-referenced multilevel analysis bridging MoNNET and CLSA data into The Montreal Synthetic Ecosystem

Project Summary
According to Statistics Canada the population is aging faster than ever resulting in both a burden on personal health and quality of life, as well as an impact on economy as a whole. Aging is influenced by many factors including genes but also many psychological and social aspects of our environment. Understanding these Gene x Environment (GxE) interactions can help us develop better-targeted strategies to improve the health of the elderly. The specific aims are to (1) examine CLSA data for GxE interactions, (2) better understand the relationship between psychosocial risk factors and chronic disease using the MoNNET cohort, and (3) equip a CIHR-funded platform for digital simulations of the multiple factors involved in the determination of healthy aging (Syntheco). Findings from this investigation will help us better understand the association between psychosocial factors and healthy aging and identify possible genetic vulnerabilities and psychological mechanisms.

Keywords
Genetic risk, Wellness, Aging, Social capital, Synthetic ecosystem