

**Applicant**

Dr. Dana Olstad, University of Calgary

**E-mail Address**

[Dana.olstad@ucalgary.ca](mailto:Dana.olstad@ucalgary.ca)

**Project Title**

How does socioeconomic position become biologically embedded? A cross-national comparison of associations between socioeconomic position and epigenetic aging in middle-aged and older adults in Canada and the US

**Project Summary**

People with a lower socioeconomic position (SEP) tend to have poorer health than those with a higher SEP. This may be because their bodies age faster biologically than those with a higher SEP. The purpose of this study is to understand how four different measures of adults' SEP (annual household income, education, household food insecurity, income inequality in the area where they live) are associated with four different epigenetic clocks that measure the speed of biological aging among middle-aged and older adults in Canada and the US. This information will help us to understand how adults' SEP affects the speed at which they age biologically and the types of policies that may promote healthy aging in a more equitable way. Epigenetic clocks can be used to estimate the difference between people's chronological age and their biological age to see if their bodies are aging more quickly than expected.

**Keywords**

Socioeconomic position, income inequality, epigenetic aging, biological embedding, health equity