

The Andersen Lab concentrates on understanding the underlying age-related processes driving neurodegenerative disease in order to identify novel therapeutics that slow or prevent them from occurring. These include small molecules that boost the cell's own ability to remove damaged proteins and other cellular components through a process called autophagy or those capable of removing cells which can inflict damage on healthy neighbors via a process called cellular senescence. Our research works towards understanding both the mechanisms involved and screening and testing novel compounds in various pre-clinical models of disease (human iPSCs, *C. elegans*, and mice).

Possible research project options include:

1. Model cellular senescence in human neuro-glial cultures and mouse models to identify novel therapeutics for Alzheimer's disease.
2. Validate drug targets for novel neuroprotective autophagy-enhancing agents previously identified by the lab via small molecule library screens.
3. Explore how gut dysbiosis drives neurodegenerative diseases including Alzheimer's and Parkinson's.

To learn more about the Andersen lab, click [HERE](#).

To apply to the Andersen lab, return to the [Internships Homepage](#).