

# **Instructor Guide:**

## *Societal and Biological Perspectives on Alzheimer's Disease*

### **Estimated Lesson Timeline:**

#### **90 minutes total**

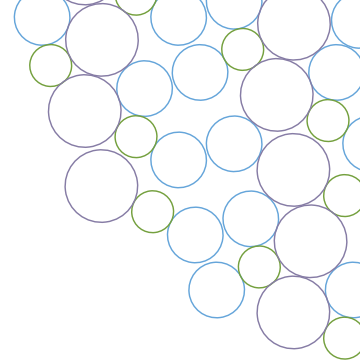
- 5 minutes: Introduction
- 25 minutes: Activity 1 Biomedical Research and Demographics
- 15 minutes: Activity 2 Exploring the Donor Index
- 45 minutes: Activity 3 Neuropathology Image Analysis

### **Prior knowledge needed:**

- Students should be able to describe the basic parts of neurons and their functions
- Students should be able to describe what proteins are and how they function

### **Learning Objectives:**

- Students will be able to evaluate what research questions can and cannot be answered via certain datasets based on the demographic composition of the study cohort
- Students will be able to evaluate the known risk factors for Alzheimer's disease
- Students will be able to analyze immunolabeled brain tissue for known biomarkers of Alzheimer's disease pathology
- Students will be able to assess what steps the NIH has taken to increase diversity in biomedical research
- Students will be able to propose possible ways the diversity of biomedical research cohorts can be improved in future research endeavors



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