

ADRC Participant Access Request

Access Request Goal

Goal - Preliminary inquiry for further discussion

Principal Investigator

Name	Zachary Irwin
Title	Assistant Professor
Institution	UAB
Email	zirwin@uabmc.edu (mailto:zirwin@uabmc.edu)
Phone	(478) 972-2549

Co-PI

Name	Nicole Bentley
Title	Associate Professor
Institution	UAB
Email	jbentley@uabmc.edu (mailto:jbentley@uabmc.edu)
Phone	(205) 934-3411

Study and Theme Details

Hypothesis

We hypothesize that impairment in sensory processing in Alzheimer's disease and Parkinson's disease contribute to cognitive deficits in these conditions.

Specific Aims

- 1) Test the hypothesis that amyloid burden in the basal ganglia correlates with deficits in both sensory discrimination and response inhibition in people with AD and PD.
- 2) Test the hypothesis that decreased sensory discrimination contributes to deficits in response inhibition in people with AD and PD.
- 3) Test the hypothesis that subthalamic nucleus deep brain stimulation improves both sensory discrimination and response inhibition in people with PD.

This study is not related to Deep South disparities

Funding and IRB Details

Funding source - Not yet funded

IRB Contact - Not yet discussed project with IRB

Subject Sample Size and Profile

Sample size by cognitive ability

Normal Controls	10
MCI	10
Moderate to Severe	10
Total N	30

Additional inclusion/exclusion details

NA

Racial minorities and other stratification

This study does NOT test hypothesis on racial disparities

Requested Resources

Existing data

Demographics	Required
Medical History	If available
Social Determinants	Not needed
Clinical Exam	Required
Cognitive Testing	Required
MRI Values	Required
Amyloid PET Values	Required
Tau PET Values	Required
Raw MRI/PET Image Files	Required
CSF	Not needed
Blood Test	Not needed
AD Blood Biomarkers	Not needed
Genetics	Not needed

Additional data comments

Currently, we are developing the grant application - initially, we are interested in whether the sample of AD patients here show an amyloid or tau burden in the basal ganglia (as reported in previous studies). If the grant is funded, we would then like to recruit a number of the same patients to participate.

Human subject involvement

Study procedures

Participants would have a single study visit in which they perform several cognitive (e.g. go/no-go response inhibition) and sensory tests (e.g. sensory discrimination thresholds)

Study duration

3 years

Compensation

100

Statistical support

Would like to discuss statistics with the ADRC