

# Neuropathology Core

Nina Silverberg

**Welcome, Ann!**

# Notice to Specify High-Priority Research Topic for PAR-19-070

Notice Number: NOT-AG-18-049

## Key Dates

**Release Date:** November 29, 2018

## Related Announcements

[PAR-19-070](#)

## Issued by

National Institute on Aging ([NIA](#))

## Purpose

This Notice of Information specifies a high-priority topic of interest for PAR-19-070 "Research on Current Topics in Alzheimer's Disease and Its Related Topics (Optional)."

### **Collaborative Studies on Alzheimer's Disease and Alzheimer's Disease-Related Dementias (AD/ADRD)**

The National Institute on Aging engaged leading experts from academia, industry, and non-profit foundations, working in Alzheimer's and other conditions, in a public comment process to help ensure that the next generation of Alzheimer's Disease Centers (ADCs) is poised to accomplish the goals of the National Alzheimer's Research Initiative. The resulting [recommendations](#) included several specific ideas centered around collaboration, including developing greater opportunities for collaborative interactions with other center programs, and making the resources at the ADCs available to outside investigators.

Building on this notion, this high-priority topic provides the opportunity to facilitate collaborative cross-disciplinary and multi-institutional approaches to research on the clinical and pathological course of both normal aging and AD/ADRD. Scientists within and outside the ADCs can gain access to the unique resources (including the availability of neuropathological data on thousands of participants) as well as support the collection and integration of new data and samples. This provides an opportunity for investigators and a wider participation in the design, analysis and interpretation of studies utilizing these unique resources, further leveraging the value of existing resources and data to answer a broad range of scientific questions. Project data may be used for new grants and/or provide standardized data for value to AD and ADRD research goals.

# NIA Diversity and Re-entry Supplement Program Guidelines

**A candidate who is currently receiving support from another PHS funding source (including the parent grant) is not eligible to receive a supplement.**

Investigators seeking supplement support should inquire about eligibility based on their funding status.

Research Supplements to Promote Diversity in Health-Related Research (Admin Supp Clinical Trial Not Allowed)

## Overview

NIA's Diversity and Re-entry Supplement programs support the development of eligible trainee-candidates who seek independent careers in aging and geriatrics research and meet NIA's goal to enhance diversity in the biomedical workforce. Supplement awards provide funds to support a mentor-directed opportunity for a trainee-candidate to develop the critical thinking skills, scientific technical expertise and professional acumen essential for career advancement in the biomedical, behavioral, clinical or social sciences.

# Exploratory Alzheimer's Disease Research Centers (P20 Clinical Trial Not Allowed)

RFA-AG-20-023

## Section I. Funding Opportunity Description

### Purpose

This Funding Opportunity Announcement (FOA) invites applications to establish NIA Exploratory Alzheimer's Disease Centers. NIA's primary goal in offering this P20 funding opportunity is to incentivize innovative ideas and opportunities in Alzheimer's disease and Alzheimer's disease related dementias (AD/ADR) research.

As part of a network, Centers are expected to participate in collaborative efforts on a national scale. Applicants must agree to collect a standard clinical data set (the Uniform Data Set, or UDS) that is common to all Centers and to transmit that data to the National Alzheimer's Coordinating Center (NACC). Applicants should contact NACC to learn more about NACC procedures, the structure of the UDS, and the regular updates to the datasets required from all Centers at <http://www.alz.washington.edu/>.

To support the unique research needs of the NACC, most Centers collect additional data to supplement those required by the UDS. These should also be made readily available to qualified investigators. Similarly, Centers should demonstrate a readiness to provide biological samples and data, with proper consent from well-characterized populations, to enable participation in large-scale, collaborative, national, or international research projects. Sample sharing may be done either locally or centrally through the National Centralized Repository for Alzheimer's Disease and Related Dementias (NCRAD). Centers are a local, regional, national, and international resource.

Exploratory Alzheimer's Disease Centers are required to include the following three cores:

- Administrative - Manage and coordinate interactions among the Director, the core leaders, the principal investigators of research projects using the resources of the Center, other researchers at the applicant institution as well as outside institutions, appropriate institutional administrative personnel, the staff of the awarding agency, and the members of the community in which the Center is located.
- Clinical - Establish and maintain a clinical enterprise that provides valuable, well-documented resources for cutting-edge clinical research for both Center personnel and the wider scientific community.
- Additional - Propose an additional core that contributes to the overall focus of the planned Center that is scientifically justified, develops resources that support other research affiliated with the Center, and fits within the budget guidelines outlined in Section II: Award Information of the FOA.

# NP Core Leaders Meeting

Friday, October 11, 2019 | 6 – 9pm | Regency ABC

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6:00pm

## Welcome

Andrew Lieberman, MD, PhD CHAIR, NP CORE STEERING COMMITTEE, NP CORE LEADER,  
UNIVERSITY OF MICHIGAN

## NIA Update

Nina Silverberg, PhD DIRECTOR, ADRC PROGRAM, NATIONAL INSTITUTE ON AGING/NIH

6:10

## Digital Pathology Working Group/QA

Brittany Dugger, PhD UNIVERSITY OF CALIFORNIA, DAVIS

Melissa Murray, MD MAYO CLINIC

6:30

## Retrospective Analysis Working Group/QA

Edward Lee, MD, PhD NP CORE CO-LEADER, UNIVERSITY OF PENNSYLVANIA

6:45

## NeuroBioBank update/QA

C. Dirk Keene, MD, PhD NP CORE LEADER, UNIVERSITY OF WASHINGTON

Tish Hevel CEO AND FOUNDER, THE BRAIN DONOR PROJECT

7:05

## ADNI autopsies

Richard Perrin, MD, PhD NP CORE LEADER, WASHINGTON UNIVERSITY IN ST. LOUIS

7:15

## Break

7:25

## PANEL PRESENTATIONS AND DISCUSSION

### Celebration of Neuropathology Core contributions outside the ADRC network

Peter Nelson, MD, PhD NP CORE LEADER, UNIVERSITY OF KENTUCKY

Anita Huttner, MD NP CORE CO-LEADER, YALE UNIVERSITY

Dennis Dickson, MD NP CORE LEADER, MAYO CLINIC

Julie Schneider, MD, MS NP CORE LEADER, RUSH UNIVERSITY

8:10

## SCIENTIFIC PRESENTATION/QA

### The prospective perspective: Mechanisms of neurodegeneration revealed by automated microscopy

Sami Barmada, MD, PhD UNIVERSITY OF MICHIGAN

9:00

## Adjourn

# ADC Panel Recommendations

## DIVISION ANNOUNCEMENTS

### Expert panel offers transformative recommendations for NIH Alzheimer's research centers

June 29, 2017

The National Institutes on Aging engaged leading experts from academia, industry and non-profit foundations, working in Alzheimer's and other complex diseases, in a strategic planning process to help ensure that the next generation of AD Centers is poised to accomplish the goals of the [National Alzheimer's Plan](#). The primary focus of this planning effort has been to develop recommendations for how the network of Alzheimer's Disease Centers can best support the implementation of the new integrated translational research agenda put forward at the [2012](#) and [2015 Alzheimer's Research Summits](#), as well as the ADRD summits, and outlined in the [research implementation milestones](#). The 166 resulting recommendations

# ADC Panel Recommendations

A. Gaps in disease recommendations and risk

B. Clinical research capacities

C. Maximize value of neuropathology expertise across ADCs

D. Translational research

E. Cross-ADC interactions/networking

F. Interactions beyond the ADC network

G. Infrastructural supports to enable prior recommendations

H. Further development of training programs

**Research**

**Collaboration**

**Enablement**



## C. Maximize value of neuropathology expertise across ADCs

### Recommendation C:

Autopsy continues to be an invaluable component of ADC activities, providing a national resource for expertise in the pathology of neurodegenerative diseases. Postmortem examination remains the gold standard by which to: confirm diagnostic criteria and clinical diagnoses, understand the prevalence of dementia subtypes including those with mixed pathologies, validate imaging and biofluid biomarkers, evaluate therapeutic response, and identify the major therapeutic targets for AD and ADRDs.

### **Recommendation: Objectives**

3. Build on existing efforts through NACC to **establish a central publicly interfacing database registry** of all stored and banked autopsy materials related to ADC research participants (including the diagnostic slides and paraffin tissue blocks in pathology department archives and wet and frozen banked tissue).

### **Strategy**

**C3c. Establish mechanisms for digital slide scanning and electronic image sharing/analysis of neuropathologically characterized tissue sections.**

#### Neuropathology and biospecimen resource locator tool

With NACC's resource locator, you can determine which Alzheimer's Disease Centers (ADCs) have biospecimens that may be available for sharing.

The tool allows you to filter by disease, tissue type, and more. Click the filter icon to specify, for example, formally fixed tissue from AD brains.

#### Digital Pathology Working Group/QA

Brittany Dugger, PhD UNIVERSITY OF CALIFORNIA, DAVIS

Melissa Murray, MD MAYO CLINIC

TISSUE TYPES			
Brain: Formalin-fixed wet	2		
Brain: Fresh frozen	2		

#### CENTER CONTACT INFORMATION

##### University of Washingt...

###### PRIMARY CONTACT

Dirk Keene

###### PRIMARY CONTACT - EMAIL

cdkeene@uw.edu

###### PRIMARY CONTACT - WEBSITE

http://depts.washington.edu/...

###### SECONDARY CONTACT(S), IF AVAIL...

Allison Beller, Thomas Grabo...

###### SECONDARY CONTACT(S) - EMAIL(...)

beller@uw.edu, tgrabow@u...



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Recommendation: Objectives	Strategy
<p>1. Maximize post-mortem rates across the ADC network, particularly for clinically well characterized research participants (including those from other research studies and clinical trials) and those of <b>particular interest</b> (e.g., unique populations and rare clinical presentations for future understanding of atypical sub-types that may not be currently recognized).</p>	<p>C1a. Survey availability across the ADC network and NACC to identify gaps in available autopsy material from cognitively normal individuals with useful prior clinical characterization. Augment approaches to increase this resource as deemed necessary, i.e. through establishing interactions with local medical examiners, etc.</p> <p>C1b. Improve autopsy consent processes for research broadly,</p>
<p>7. <b>Expand opportunities for autopsies</b> beyond UDS and clinical core participants when they facilitate AD and ADRD research, including representation of a broad population of cognitively normal and impaired individuals.</p>	<div data-bbox="1172 1113 1987 1242" style="background-color: #e0e0e0; padding: 5px;"> <p><b>NeuroBioBank update/QA</b>            C. Dirk Keene, MD, PhD NP CORE LEADER, UNIVERSITY OF WASHINGTON            Tish Hevel CEO AND FOUNDER, THE BRAIN DONOR PROJECT</p> </div> <div data-bbox="1668 1270 2458 1363" style="background-color: #e0e0e0; padding: 5px; margin-top: 10px;"> <p><b>ADNI autopsies</b>            Richard Perrin, MD, PhD NP CORE LEADER, WASHINGTON UNIVERSITY IN ST. LOUIS</p> </div>

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<b>Recommendation: Objectives</b>	<b>Strategy</b>
<b>5. Continually evolve standard protocols of assessment and tissue banking in parallel with advancing clinical and biomarker research</b> through ongoing communication with imagers, clinicians, clinical trialists and experts in other disciplines.	<b>C5a.</b> Modify prioritized regions for anatomical sampling to match ROIs based on emerging PET targets (i.e., tau-PET and other novel PET targets as they are developed) and ROIs associated with specific therapeutic targets such as locus ceruleus for adrenergic therapies, dorsal raphe for serotonergic therapies, etc. <b>C5b.</b> Establish interactions with therapeutic trial sponsors (academic and industrial) to obtain autopsy tissue from therapeutic studies (both pharmacologic and non-pharmacologic) to evaluate pathological signals of outcomes (both responders and non-responders) for post-hoc analyses of subject appropriateness, adverse effects, confounding co-morbidities and target engagement.

Retrospective Analysis Working Group/QA

Edward Lee, MD, PhD NP CORE CO-LEADER, UNIVERSITY OF PENNSYLVANIA

# How NDRI Can Assist NIA Funded ADCs:

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1. Coordinating post-mortem tissue recovery for:
  - a) donors located outside of ADC catchment area
  - b) trial participants being followed by NIH wherein no PM tissue collection plan is built into study
2. Providing ADCs with normal control brains
3. Scheduling in-home blood collection

*NDRI can also support the promotion of ADCs' sample distribution  
(via researcher referral).*

**Contact us to learn more:**

Gene C. Kopen, PhD SVP, Strategic Initiatives

[gkopen@ndriresource.org](mailto:gkopen@ndriresource.org)

[www.ndriresource.org](http://www.ndriresource.org)

# Update from NAPA Council

## RECOMMENDATION 7 -- NEW FOR 2019

To expand access to brain tissue needed for AD/ADRD research purposes, NIH should explore gaps in tissue availability for research, and review and refine the current infrastructure at the NIH NeuroBioBank and Alzheimer's Disease Research Centers (ADRCs) to fill these gaps.

- NIH should consider the value of widening outreach to accept brain donations from clinically well-characterized individuals, such as those receiving clinical care at dementia research sites like ADRCs and Udall Centers.
- Collaborations should be considered that leverage existing NIH-funded brain banks and AD/ADRD research programs, with continuing attention on consent issues, harmonizing protocols and data sharing practices.