# AI/AN Grant Activities in Aging

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#### **NIA Mission**

- Support and conduct genetic, biological, clinical, behavioral, social, and economic research on aging.
- Foster the development of research and clinician scientists in aging.
- Provide research resources.
- Disseminate information about aging and advances in research to the public, health care professionals, and the scientific community, among a variety of audiences.





#### Outline

- Key NIA infrastructure
- Examples of recent NIA engagement
- Future opportunities



#### Alzheimer's Disease Research Centers Network

- The ADRCs across the nation conduct clinical, neuropathology, imaging, biomarkers, genetics, pathogenesis, and therapeutics research
- A partnership between the Wisconsin ADRC and the Oneida Nation of Wisconsin aims to raise awareness of Alzheimer's and related dementias in American Indian communities, understand how the disease affects elders and their families, expand memory care and caregiving resources, and extend research partnerships with the American Indian nation and tribal communities



#### Natives Engaged in Alzheimer's Research

• Goal: To understand, intervene on, and mitigate Alzheimer's and related dementias disparities in American Indians/Alaska Natives and Native Hawaiians and Pacific Islanders by testing various sustainable and culturally-appropriate interventions.

#### Interventions include:

- IKE Kupuna (Elder Wisdom) Project: A tailored hula dance program to prevent or slow cognitive decline
- Cognition After Obstructive Sleep Apnea Treatment Among Native American People:

  Positive airway pressure therapy, a behavioral intervention for obstructive sleep apnea, to improve sleep quality, cognitive function, and vascular risk factors for Alzheimer's and related dementias
- Indians Transforming Alzheimer's Care Training (INTACT): A clinic-level intervention to improve Alzheimer's and related dementias diagnosis and quality of care for AI/ANs



#### The American Indigenous Cognitive Assessment (AMICA) Project

- The AMICA Project aims to improve the diagnosis and care of Indigenous persons with dementia by developing a culturally appropriate dementia evaluation toolkit to provide accurate diagnoses.
- The project is adapting and validating a battery of four cognitive assessment tools in three American Indian populations in Minnesota, Wisconsin, and New Mexico.
- The AMICA toolkit comprises four instruments:
  - A cognitive assessment
  - Caregiver report of symptoms of dementia
  - Evaluation of depression symptoms
  - Inventory of changes in activities of daily living





#### Longitudinal Studies in Native Populations

- Great Smoky Mountain Study of Rural Aging: aims to create a data resource to better understand aging in a rural context. This study includes up to 9 interviews of over 250 American Indian from around age 9 through the early 40s.
- Resilience, Cultural Alignment, and Social Support in Brain Aging: investigates whether individual
  psychosocial characteristics can mediate risk for neurodegenerative conditions like Alzheimer's. This
  project leverages the NHLBI Strong Heart Study, a longitudinal cohort of American Indian adults from 13
  tribal communities across the U.S.
- <u>Dementia Epidemiology, Health Service Utilization and Treatment Costs among American Indian and Alaska Native Elders</u>: leverages 16 years of longitudinal data available in the Indian Health Service (IHS) Data Project (~ 640,000 Al/ANs) to **better understand the health burden of Alzheimer's Disease and related dementias on Al/AN elders and their impact on the Indian health system**.



### Native American Research Centers for Health (NARCH)

• The NIH-funded NARCH program supports opportunities for conducting research and career enrichment to meet health needs prioritized by American Indian/Alaska Native tribes or tribally based organizations.

#### For example, the Wabanaki NARCH is funded by NIA and NIGMS to:

- Promote and expand the research and service capabilities of Wabanaki Public Health, a tribal public health district that is uniquely positioned to assume a leadership role in studying health disparities experienced by the Wabanaki and other northeastern tribal communities; and
- Fill gaps in our knowledge of Alzheimer's and related dementias and mild cognitive impairment among American Indian elders.





## Resource Centers for Minority Aging Research (RCMAR)

RCMARs support <u>aging research workforce</u>
 <u>development</u> and <u>development of infrastructure to</u>
 <u>promote advances in these areas</u> while simultaneously increasing the number of researchers focused on health disparities and the health and well-being of minority elders.





 RCMARs support research at multiple levels from genetics to cross-national comparative research, and at stages from basic through translational, with the goal to improve the health, well-being, function, and independence of older Americans.



## Resource Centers for Minority Aging Research (RCMAR)

- There are two RCMARs focused on Native populations:
  - Alzheimer's Focus: The Native Alzheimer's Disease Resource Center for Minority Aging Research (NAD-RCMAR) aims to better understand and mitigate the Alzheimer's disease health disparities experienced by American Indians, Alaska Natives, Native Hawaiians, and Pacific Islanders.
  - General Aging Focus: The Community Health and Aging in Native
    Groups of Elders Resource Center for Minority Aging Research (CHANGE
    RCMAR) focuses on community-based research with Native
    communities and conducting research with Native populations.



## NIA funded projects with focus on AI/AN

 5 P30 AG083263-02; PI: Denise Dillard, Washington State University
 Title: Community Health and Aging in Native Groups of Elders Resource Center
 for Minority Aging Research (CHANGE RCMAR)
 3 proposed Pilot Projects:

❖Investigator: Marija Bojic

Title: Supporting American Indian and Alaska Native (AI/AN) Grandfamily Elders (SAGE): Exploring the Impact of Caregiving on Depression and Cognitive Function in AI/AN Elders

❖Investigator: Talia Quandelacy

Title: Measuring the burden of severe respiratory infections-associated hospital utilization and expenditures among AI/AN adults aged 65 years and older

❖Investigator: Cliff Whetung

Title: Factors Associated with Dementia among American Indian and Alaska Native Older Adults: An Analysis of the All of Us Cohort



## NIA funded projects with AI/AN in the abstracts/Aims

Activity	Contact PI	Title The Control of
5R01AG041860-14	KUSHEL, MARGOT B	Aging Among the Homeless: Social Isolation, Function and Institutional Care
5R01AG054442-06	KAPLAN, HILLARD S	Testing Hypothesized Pathways Linking Infection, Physical Activity, ApoE Genotype, And Biological Sex To Low Dementia Prevalence and Reduced Brain Atrophy In Two Native American Populations
5P30AG062715-07	ASTHANA, SANJAY	Wisconsin Alzheimers Disease Research Center
5R25AG069711-05	MCELIGOT, ARCHANA J	Neurocognitive Aging & Analytics Research Education (NAARE)
5R01AG070864-05	PERICAK-VANCE, MARGARET A	Genomic Characterization of Alzheimer Disease Risk in Admixed Populations with Native American and Southern European Genetic Ancestry
5R25AG071461-05	SCHATTEN, GERALD	Advancing Native American Diversity in Aging Research through Undergraduate Education (Native American ADAR)
5P30AG072980-05	LANGBAUM, JESSICA BROOKE	Arizona Alzheimer's Disease Research Center
4RF1AG075107-02	NAN, BIN	Statistical Methods for Alzheimer's Research
5R25AG076387-04	PHILLIPS, LINDA R	ACOA/MSTEM THRIVE Program for Undergraduates
5U19AG076581-03	DE ERAUSQUIN, ALEJANDRO	Interactions of SARS-CoV-2 infection and genetic variation on the risk of cognitive decline and Alzheimer's disease in Ancestral and Admixed Populations
5R01AG077518-03	VALERI, LINDA	Bayesian Statistical Learning for Robust and Generalizable Causal Inferences in Alzheimer Disease and Related Disorders Research
5R01AG079175-03	RAZAVIAN, NARGES	Leveraging Electronic Health Records for Reducing Dementia Screening Disparities in Diverse Communities
5R01AG079887-03	ZACHRISON, SAUSER	Addressing Racial/Ethnic Disparities in Stroke Care Access Using Hospital Transfer Networks
5R01AG080485-03	COPELAND, WILLIAM	Mid-Life Health in the Rural South: Risk and Resilience
5R01AG080806-04	MANTYH, WILLIAM G	Dementia prevalence, APOE, and blood-based biomarkers of AD in Native American communities
5U01AG081817-03	TOSTO, GIUSEPPE	GLASS-AD: Global Latinos Sequencing Study for Alzheimer's Disease
5R25AG083721-03	CUMMINGS, JEFFREY L	Alzheimer's Disease and Related Dementias Innovation Incubator (InnovaTor)
5R25AG086095-02	MAURER, ANDREW PORTER	GATORAADE: Gators Advancing Through Opportunities in Research for Aging and Alzheimer's Disease Education
5R25AG086126-02	RODGERS, KATHLEEN E	Diversity in Research Education in Aging Medicine and Science
1U54AG089334-01	SNYDER, MICHAEL P	VAST Center: Viromes Across Space(s) and Time
1R25AG096206-01	SCHATTEN, GERALD	INCLUDE Clinical Researcher Training (ICRT)
1R13AG097036-01	SESHADRI, SUDHA	Neurepiomics: International Workshops to Grow and Support Global Network of Interdisciplinary Researchers Fluent in Neurology, Brain Imaging, Epidemiology, Genetics, Multiomics, Ethics and Equity
7R 1 (16 % ) 05 <sub>on</sub> Agingo, Jinying		Gut microbiome, aging and cardiometabolic diseases in American Indians

### NIA Meeting with the Cherokee Nation Leadership

• In November 2023, Dr. Hodes and other members of NIA leadership met on Cherokee sovereign land with the Cherokee Nation Chief and other tribal leaders at the Cherokee Nation Outpatient Health Center.

 Leaders from both parties discussed areas of mutual interest, and NIA learned from the tribal leadership about their scientific priorities for the Cherokee Nation.



Chief Chuck Hoskin Jr. greeting Dr. Richard Hodes Photo taken by the Cherokee Nation



NIA and Cherokee Nation leadership Photo taken by the Cherokee Nation



## NIA Director's Regional Meeting 2023

- The 2023 NIA Director's Regional Meeting was held at Oklahoma State University.
- The Cherokee Nation co-hosted the 2023 meeting with the Oklahoma State Health Sciences Campus and several other partners.
- This was a full-day meeting on research and training for individuals new to aging research as well as those underrepresented in aging research.
- In addition, the 2024 NIA Director's Regional Meeting was co-hosted by the Navajo Department of Health.





#### **Collaborating Partners:**















### **Butler-Williams Scholars Program**

For junior faculty and researchers new to the field of aging



Dates: August 25-27, 2025 Eligibility: Doctoral degree (e.g., PhD, MD, etc.)



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