11 Statewide Researchers Receive Pilot Grant Funding for Dementia Research for 2026

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The Alzheimer's Disease and Dementia Research Center (ADRC), a state-funded center at Utah State University housed within the Emma Eccles Jones College of Education and Human Services, recently awarded its 2026 catalyst grants for research related to Alzheimer's disease and dementia. The center is committed to research and support for the rapidly growing number of adults in Utah who are diagnosed with Alzheimer's disease and other forms of dementia and those who care for them. As part of its mission, the ADRC annually funds Alzheimer's and dementia research across the state through catalyst grants. The 2026 ADRC grant funding was awarded to 11 researchers who represent universities throughout Utah.

"This year we had nearly double the number of researchers apply for funding," said ADRC Director Beth Fauth. "This is exciting because we are seeing a growing number of dementia researchers use this funding mechanism to propel their work forward and a growing number of scientists in Utah who are pivoting their related expertise into the study of Alzheimer's disease and related dementias."

Fauth continued, "The portfolio of studies we were able to support this year demonstrates the breadth of scientific disciplines that are needed to understand dementia. We are learning more about the pathologies that cause dementia; how to prevent, slow, or treat dementias; and how best to support family members who are caring for people with dementia, both at the policy level and the mental health intervention level."

Examining a Single-Session Digital Mental Health Intervention to Improve Mental Health Among Dementia Caregivers

Ty Aller, Utah State University

Ty Aller, Ph.D., is a mental health clinician; researcher for the Institute for Disability Research, Policy, and Practice; and a research assistant professor in the Department of Human Development and Family Studies at Utah State University. Aller's project will determine if a single-session digital mental health intervention is helpful for improving wellbeing and mental health among family caregivers of individuals with dementia. "Single-session interventions have the potential to be nested into varying contexts—such as doctors' visits, social media posts, and newsletters—that can reach family caregivers in innovative ways, thereby expanding potentials for support," said Aller. "This current study will help us learn more about how this program works for caregivers and how to better disseminate these programs to support the mental health needs of family caregivers in the coming years."

Developing an Intranasal Therapy to Treat Alzheimer's Disease

David Britt, Utah State University

David Britt, Ph.D., professor of biological engineering at Utah State University, explains that there is growing evidence that herpes simplex viruses, such as those that cause cold sores, are associated with amyloid plaques, which contribute to pathology of Alzheimer's disease and dementia. Approximately 50 to 80% of Americans are infected with the virus, often without symptoms. Britt and his team will develop an intranasal therapy with the aim to reduce transmission to the brain and to target the virus if it is already in the brain. "The objective of this research is to develop a nanotherapeutic capable of crossing into the brain via nasal delivery," explained Britt. "Our long-term goal is to prevent the development and/or progression of Alzheimer's disease through a nasally delivered therapy that has inherent immune stimulating activity."

Understanding the Factors that Drive Abnormal Social Interaction in Alzheimer's Disease

Nick Frost, University of Utah

Dr. Nick Frost, MD, Ph.D., assistant professor at the University of Utah in the Department of Neurology, aims to understand the factors that drive abnormal social interaction in dementia patients so clinicians are better able to intervene early in the course of Alzheimer's disease. He explains that social isolation is a risk factor for dementia, thus social interaction is critical for slowing the progression of Alzheimer's disease. Complicating this, patients with Alzheimer's disease often are less socially active and may have increased difficulty interacting normally. "The primary goal of my clinic is to slow down or stop progressive symptoms related to Alzheimer's disease," said Frost. "By better identifying factors that interfere with healthy social interaction we may better provide holistic care to patients and their families."

Examining the Feasibility of an Immersive Virtual Reality Cognitive Training Program

Yongseop Kim, University of Utah

Yongseop Kim, Ph.D., assistant professor in the Department of Occupational and Recreational Therapies at the University of Utah, will examine the feasibility of an immersive virtual reality cognitive training program for older adults with mild cognitive impairment. “Many people worry about losing independence as memory and thinking change with age,” explained Kim. “This research will explore enjoyable, non-drug options that may help people stay mentally sharp longer and improve quality of life for individuals and their families. Our goal is to test whether virtual reality activities can help improve thinking skills, especially spatial awareness, in older adults who are at risk for Alzheimer’s disease.”

Examining How a Neurodevelopmental Gene Influences Neuron Aging and Disease Later in Life

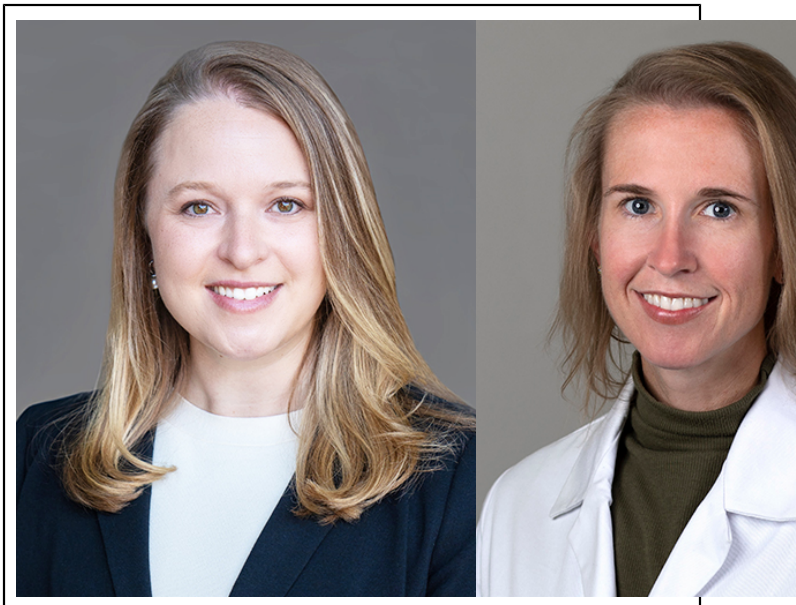
Nichole Link, University of Utah

Nichole Link, Ph.D., is an assistant professor in the Department of Neurobiology at the University of Utah. Her project will investigate how an early neurodevelopmental gene, ANKLE2, influences neuron aging and disease later in life. “ANKLE2 is clearly essential for early brain development, but we are just beginning to understand its role in the aging neuron,” explained Link. “We find that without ANKLE2, neurons don’t function as well, and animals develop progressive motor disease. In addition, loss of ANKLE2 makes some outcomes of Alzheimer’s disease, like Tau protein aggregation, worse. We are very interested in understanding how ANKLE2 modifies Tau properties.” Her team ultimately hopes to determine how ANKLE2 affects Tau so they can design novel ways to reduce Tau aggregation in Alzheimer’s disease.

Determining the Relationship Between Environmental and Genetic Factors that Influence Alzheimer's Disease

Perry Ridge, Brigham Young University

Perry Ridge, Ph.D., professor of bioinformatics and neuroscience at Brigham Young University, is using Alzheimer's disease data from a longitudinal study following individuals since the early 1960s. Recently, cognitive assessments and whole genome data were collected on these individuals. Ridge will use the new data to determine the relationship between environmental factors, such as traumatic brain injury, and known genetic factors and how they influence Alzheimer's disease. "Environmental factors that influence disease risk are, at least in theory, immediately addressable," explained Ridge. "For example, a person can choose to exercise more often, eat healthy, or stop smoking. If we can identify factors that offset genetic risk, these may provide compelling motivation to individuals to choose to modify their lifestyles."



MRI Patterns Between Bipolar Disorder and Frontotemporal Degeneration

Haley Solomon and Michelle Sorweid, University of Utah

Dr. Haley V. Solomon, DO, assistant clinical professor of psychiatry, and adjunct assistant professor of medicine, and Dr. Michelle Sorweid, DO, MPH, associate clinical professor, both in the Division of Geriatrics in the University of Utah School of Medicine, will examine whether structural brain MRI patterns can distinguish bipolar disorder, a psychiatric illness, from behavioral-variant frontotemporal degeneration, a neurodegenerative disease. "Both conditions share prominent disturbances in mood, behavior, executive function, and social cognition making clinical differentiation challenging, particularly in midlife when psychiatric presentations are common and neurodegenerative disease is less common," explained Sorweid. The researchers believe it is imperative for treatment, planning, and outcomes to understand distinct imaging patterns between the two conditions to help avoid delays in diagnosis and to better predict individuals who may go on to develop neurodegenerative disease.

Examining End-of-life Care in Nursing Home Dementia Patients to Improve Care Quality

Caroline Stephens, University of Utah

Caroline Stephens, Ph.D., professor and Helen Lowe Bamberger Colby Presidential Endowed Chair in Gerontological Nursing at the University of Utah, will explore family structure and end-of-life care patterns in nursing home residents who have been diagnosed with dementia. “The project uses a unique Utah dataset linking nursing home residents with Alzheimer’s and related dementias to their families to study how family relationships shape end-of-life care,” explained Stephens. “We are hopeful that our findings will help improve care quality; guide more personalized, family-centered approaches; and inform state policy and resource allocation to better support individuals living with dementia and their families at the end of life.”

Examining Dementia, Divorce, and State-Level Medicaid Policy

Rebecca Utz, University of Utah

Rebecca Utz, Ph.D., professor of sociology and associate dean of research in the College of Social and Behavioral Science at the University of Utah, will explore if Alzheimer’s disease and related dementias are associated with divorce. Divorce may occur due to interpersonal challenges related to managing the symptoms of dementia and/or as a way to prevent the high medical costs of dementia from causing financial strain for the other partner. “We hope to show what types of targeted supports can be made available to people with dementia and their partners, such as therapies to reduce relationship strain or surrogate decision-making support after a divorce,” explained Utz. “Also, if we find evidence of ‘medical divorce,’ Medicaid policies might be adjusted to reduce the need to divorce in order to achieve financial security for couples facing dementia. No one should feel pressure to legally end their marriage for financial reasons.”

Examining the Role of Processed Meats and Oxidized Dietary Cholesterol in Cognitive Decline

Robert Ward, Utah State University

Robert Ward, Ph.D., associate professor of nutrition, dietetics, and food sciences at Utah State University, will examine the role of processed meats in cognitive decline. He explained that processed meat consumption is associated with an increased risk of dementia when compared to fresh meat consumption, but it is not clear why. “The goal of this project is to test the hypothesis that oxidized dietary cholesterol, which is enriched in processed meats, may promote metabolic dysregulation, leading to cognitive decline and dementia risk,” explained Ward. “If our hypothesis is correct, we will identify possible biomarkers for dementia risk, as well as foods that should be avoided in persons concerned about dementia. Future work will focus on potential diet strategies to remove or mitigate problematic oxysterols from the body.”

Developing a New Version of Resveratrol to Prevent or Slow Alzheimer’s Disease

Jixun Zhan, Utah State University

Jixun Zhan, Ph.D., professor and head of the Department of Biological Engineering at Utah State University, focuses his research efforts on synthetic biology and metabolic engineering, particularly the biosynthesis of health-benefiting natural compounds. His ADRC-funded project aims to develop new versions of resveratrol, a plant compound known for its potential brain-protective effects. “We are exploring whether adding certain chemical groups can make these compounds more effective in preventing or slowing Alzheimer’s disease,” he explained. “By creating improved resveratrol-based compounds, we hope to discover affordable treatments that can protect brain health, reduce memory loss, and improve quality of life for those at risk.”