Opportunity to make an impact in Alzheimer’s disease research:
Center Director of Brown University’s Center for Alzheimer’s Disease Research

Deadline for full consideration: December 15, 2021
Anticipated start date: July 1, 2022
Search for the Center Director
Center for Alzheimer’s Disease Research, Brown University

“This is truly a transformative moment for Alzheimer’s disease and dementia research at Brown. We have a robust foundation in place, and by bringing aboard new scholars, investing in facilities and creating the infrastructure to connect the incredible work already happening in our labs and clinical settings, our goal is to accelerate development toward novel treatments and cures in the fight against this devastating disorder.”

– President Christina H. Paxson

The Search

Brown University is seeking applications from rising and established leaders in Alzheimer’s disease research for the position of Center Director for its Center for Alzheimer’s Disease Research, with a tenured faculty appointment at the Associate or Full Professor level.

Two founding gifts to Brown totalling $30 million catalyzed the establishment of the Center for Alzheimer’s Disease Research. Housed within the University’s Robert J. and Nancy D. Carney Institute for Brain Science, the center is committed to advancing early detection and individualized treatment for Alzheimer’s disease and related dementias. The Carney Institute is a powerhouse research institute with a history of significant discoveries and highly successful collaborative research in the brain sciences. A $100 million namesake gift in 2018 established Carney as one of the best-endowed university brain institutes in the country.

Brown is seeking a successful scientist and inspiring leader to guide its growing Alzheimer’s disease-focused research initiative. The incumbent will receive a tenured academic appointment(s) in a Carney Institute-affiliated department; a clinical appointment in a clinical department is also encouraged where appropriate. The successful applicant will be an M.D., M.D./Ph.D., or Ph.D. with an outstanding record of leadership, research and mentorship that spans clinical and foundational research. A detailed list of the desired qualifications and characteristics of the Center Director can be found at the conclusion of this document.

About Brown University

Brown University is an Ivy League institution renowned for the rigor and innovation of its education, as well as the excellence of its research. A commitment to academic excellence, intellectual freedom and making an impact to better serve people, communities and society is at the center of everything we do.

Brown is a place where rigorous scholarship, complex problem-solving and service to the public good are defined by intense collaboration, intellectual discovery and working in ways that transcend traditional boundaries.
Providence, Rhode Island — Brown’s home for more than two and a half centuries — is a vibrant place to live and work, a stimulating hub for innovation and a city rich in cultural diversity.

Learn more about Brown:

- Brown’s Strategic Plan: Building on Distinction
- Operational Plan for Building Brown’s Excellence
- Pathways to Diversity and Inclusion

About the Carney Institute for Brain Science

The Robert J. and Nancy D. Carney Institute for Brain Science supports research, training and outreach to enhance its community of 200 faculty members and their laboratories from 20 academic and clinical units at Brown. The institute’s pioneering work is driving discovery that promises to improve the quality of life for people affected by brain disorders and injury and help us understand the complexities of the brain.

Carney researchers have developed brain-computer interfaces to aid patients with spinal injury and paralysis. The institute continues to make innovative advances in computational neuroscience to address behavior and mood disorders. Our researchers developed bioluminescent molecules to detect and control neuronal activity and new methods for labeling neural circuits, and we are driving research into the mechanisms of neurodegeneration to identify therapies for neurodegenerative diseases such as ALS and Alzheimer’s and Parkinson’s diseases.

The Carney Institute’s 2019 ambitious 10-year strategic plan supports research with real-life, human applications. To date, the Carney Institute has raised more than $230 million in philanthropic support of its research and education mission in brain science. This includes a $100 million gift that named the institute in 2018. These gifts support a core research priority in Brown’s Building on Distinction strategic plan: “understanding the human brain.”
Through our research centers, we support research in five key areas: Alzheimer’s disease; cognition and behavior; computational brain science; neurobiology of cells and circuits; neuroengineering and neurotechnology. (See appendix for information about the institute’s research centers.)

Each of Carney’s research areas builds on Brown’s national and international reputation as home to one of the premier academic institutes for brain science, and each incorporates plans to address societal needs in health and technology.

Furthermore, the Carney Institute fuels innovation in research and supports strategies for commercialization of intellectual property. The institute does this through several programs including:

- **Innovation Awards:** The institute provides up to $132,000 annually per project to fund early-stage research that is too new to attract external support, but that has great potential to advance science and benefit society. Carney typically funds four to seven projects each year, and the institute’s support has yielded a 20-fold return in external funding.
- **BRAINSTORM:** This program bridges the gap from science to applications for better brain health by supporting projects at the interface of neuroscience, machine learning and brain disorders.
About the Center for Alzheimer’s Disease Research

With support from two generous gifts totaling $30 million, Brown established the Center for Alzheimer’s Disease Research in April 2021 with the aim of building a world-class research program focused on early detection and treatment of Alzheimer’s disease and related dementias. The mission of the center is to catalyze collaborations across basic and clinical research groups at Brown and its affiliated hospitals to uncover when, where and how Alzheimer’s disease first arises.

Housed within the Carney Institute, the Center for Alzheimer’s Disease Research bridges foundational research and clinical studies and fosters collaborative thinking across multiple disciplines, such as neuroscience, aging, public health and computation. The center supports projects that span laboratory research and human population studies, including:

- A project in partnership with Lund University in Sweden to build and study a cohort of 500 asymptomatic individuals to identify early biomarkers of cognitive impairment and ultimately Alzheimer’s disease. As part of this collaboration, the center is establishing a new fluid biomarkers laboratory to accelerate the development of promising blood tests to improve early diagnosis and testing of new treatments for Alzheimer’s disease and related dementias.
- A project to study risk factors for Alzheimer’s disease and cognitive decline using a rare cohort of 720 people, who have been followed since their birth in the 1960s and are now reaching the average age at which Alzheimer’s disease symptoms first begin to manifest.
- A project to develop a platform to study aging in the brain’s hypothalamus, the seat of control for critical processes such as sleep, temperature regulation, eating and metabolism, which can become dysregulated with aging. Scientists are working to generate human-derived hypothalamic brain cells, which for the first time will allow researchers to generate rare types of human neurons that are physiologically aged.
Alzheimer’s and other neurodegenerative diseases require collaborative thinking across disciplines in both basic and clinical research to generate the knowledge we need to advance prevention, treatments and cures. To that end, the center brings together basic science researchers, clinicians and physician-scientists at Brown and its affiliated hospitals, including Butler Hospital, Rhode Island Hospital, Women and Infants Hospital and the Providence VA Medical Center. Below is information about academic and clinical partners that have Alzheimer’s disease research groups.

**Butler Hospital Memory and Aging Program**
The Butler Hospital Memory & Aging Program (MAP) is a worldwide leader in Alzheimer’s disease research. An affiliate of The Warren Alpert Medical School of Brown University, MAP has a 25+ year history of excellence in clinical care, training and cutting-edge research aimed at developing new and better ways to detect, treat and someday even prevent Alzheimer’s disease. The program works hand in hand with health care providers, community groups, other research organizations and people with normal memory or some degree of memory loss who are willing to participate in the research needed to bring an end to Alzheimer’s disease. The program is conducting landmark NIH-sponsored trials — ADNI, DIAN, LEADS, AHEAD, and US POINTER — with over $6M annually in research funding. The Memory and Aging Program has strong collaborations with major Alzheimer’s disease research centers, the NIA, the Alzheimer’s Association and pharmaceutical partners.

**Rhode Island Hospital Alzheimer’s Disease and Memory Disorders Center**
The Alzheimer’s Disease and Memory Disorders Center at Rhode Island Hospital offers a full range of diagnostic and treatment services, including brain imaging, genetic testing and neuropsychological evaluation. The center is nationally known for its clinical services and research, including the clinical trials program that offers the latest in leading-edge new therapies aimed to treat, delay and ultimately prevent the symptoms of Alzheimer’s disease. Center researchers participate in the national Alzheimer’s Disease Neuroimaging Initiative, spearhead a patient registry for prevention studies, and they participate in the AHEAD study, a trial testing early intervention for patients at risk of developing Alzheimer’s disease.

**Rhode Island Quality Institute**
Founded in 2001, the Rhode Island Quality Institute operates Rhode Island’s Health Information Exchange (HIE) and is the state-designated Regional Health Information Organization (RHIO). RIQI is a center for collaborative innovation that enables the best healthcare in Rhode Island by making trusted data and information available. With a wide array of services available, The Institute facilitates improvements in health and healthcare through initiatives that support care coordination, reduce medical errors and waste, advance quality measurement, and engage patients and families in their care. In support of the quintuple aim for improving health care, RIQI improves healthcare by providing robust, quality data that helps clinicians to provide evidence-based care and interventions to reduce health inequity, improve quality, and develop measurement tools to assess progress.
Advance CTR

Advance-CTR is a statewide hub of research resources and services for clinical and translational investigators in Rhode Island. The aims of Advance-CTR are to support the enhancement of infrastructure and human resources required to address clinical and translational research needs in Rhode Island; to strengthen clinical and translational research that addresses the broad spectrum of health challenges faced by populations in Rhode Island; and to foster and coordinate collaboration in clinical and translational research across our partner institutions in Rhode Island and with other institutions in the IDeA-CTR network. Advance CTR provides professional development and pilot project award programs, as well as biostatistics and research design, biomedical informatics, and community engagement and outreach.

School of Public Health

The Brown University School of Public Health (SPH) includes numerous faculty members conducting research related to Alzheimer’s disease and related dementias. The Center for Gerontology & Healthcare Research focuses on epidemiological research related to aging and health services research. The Center for Long-Term Care Quality & Innovation, administratively housed within the Center for Gerontology, conducts research to improve care for older adults, focusing on nursing homes. Additional faculty in the Department of Biostatistics are working on problems related to Alzheimer’s disease. SPH researchers apply novel experimental and quasi-experimental methods to design and evaluate interventions and policies that aim to improve the quality of care for individuals with Alzheimer’s disease and related dementias and their caregivers. Research spans the continuum of care from the community to long-term care facilities. Key projects include the National Institute on Aging Imbedded Pragmatic Alzheimer’s Disease and Alzheimer’s Disease-Related Dementias Clinical Trials (IMPACT) Collaboratory, which will support trials to test non-drug, care-based interventions for people living with dementia, develop best practices for implementing and evaluating interventions for Alzheimer’s disease and dementia care, and share them with the research community at large.

The Warren Alpert Medical School

By attracting first-class physicians and researchers to Rhode Island over the past four decades, The Warren Alpert Medical School of Brown University has radically improved the state’s health care environment, from health care policy to patient care. The Warren Alpert Medical School is a component of Brown’s Division of Biology and Medicine. Together with Brown’s seven affiliated teaching hospitals, the collective research enterprise in the life and health sciences attracts $195 million in sponsored research funding per year. More than 2,000 faculty members provide clinical excellence in psychiatry, neurology and neurosurgery, and are involved in the teaching of medical students and residents.

Center for Translational Neuroscience

The Center for Translational Neuroscience (CTN) is a joint center within the Carney Institute and the Division of Biology and Medicine. The mission of the CTN is to advance knowledge of the pathogenesis of brain disease and to translate this knowledge to improved clinical outcomes for
families affected by brain disease. The mission has an emphasis in research and training related to deciphering disease pathogenesis, identification of new targets for molecular interventions, and development of improved diagnostics and biomarkers. The science of the CTN starts with patients and takes the specific approach of genetically inspired translational neuroscience.

**Brown University Center on the Biology of Aging**
The mission of the Center on the Biology of Aging is to promote research and education programs on the causes and treatment of aging. The center provides a focal point whose primary function is basic research on the biology of aging. The ultimate goal is to catalyze activity that will improve human health span. The center seeks to: identify biological mechanisms that can extend healthy life, and to develop interventions to ameliorate the negative aspects of aging. In addition to escalating research activity, the center also strives to inform and educate the Brown community and the public.

**Center for Computational Brain Science**
The Center for Computational Brain Science (CCBS) harnesses Brown’s expertise in computation, cognition and systems neuroscience towards new brain health solutions. CCBS catalyzes new collaborations across campus, engaging mathematicians, computer scientists, biologists, behavioral economists and cognitive neuroscientists. The center allows for integration across levels of computational analysis, which is critical for understanding the brain. Building on Brown’s Open Curriculum, the center provides cross-training in computational methods for students, basic scientists and physician-scientists. The center also enhances community engagement in computational brain science through hackathons, modeling challenges and scientific symposiums. CCBS invests in high-risk, high-gain research with the potential for conversion to startups, thereby accelerating the translation of computational approaches to clinical applications and commercialization.

**Data Science Initiative**
Brown’s Data Science Initiative (DSI) is a hub for research and education in the foundational methodologies, domain applications, and societal impacts of data science. DSI increases data fluency and educates the next generation of data scientists, through its master’s program and by providing outreach to students and researchers at a variety of career stages. DSI offers a master’s degree in Data Science, designed for students from a broad range of educational and work backgrounds. It is also an option as a 5th-year Master's Degree for Brown undergraduates and for Brown Ph.D. students as a doctoral certificate or a Sc.M. degree through the Open Graduate program. Data Science includes additional options for undergraduates.

**Center for Computational Molecular Biology**
The prime intellectual mission of Brown’s Center for Computational Molecular Biology (CCMB) is to promote the development, implementation and application of analytical and computational methods to foundational questions in the biological and medical sciences. The research programs of the Core Faculty in CCMB lie fundamentally at the intersection of computer science, evolutionary biology, mathematics, and molecular and cellular biology.
Biological questions that currently unite the CCMB Core and Associate Faculty include: How do genotypes and genes interact to produce phenotypes, and how does this happen from womb to tomb? Quantitative questions that currently unite the CCMB faculty include: how can we design powerful algorithms to make sense of the sea of data produced in the genomic era?

**COBRE Research Centers**
As an IDeA state, Rhode Island is eligible for funding through the NIH Centers of Biomedical Research Excellence (COBRE) Program. Between Brown and its affiliated hospitals, five COBRE awards promote research—especially launching the careers of junior faculty members and providing state-of-the-art research equipment—in areas related to Alzheimer’s disease. These centers, along with Brown’s Advance-CTR award, serve as platforms for bridging basic and clinical research and launching the careers of junior faculty members.

**COBRE Center for Nervous System Function:** Housed in the Carney Institute, this COBRE investigates the mechanisms of higher-brain function focusing on decision making and abstract sequence construction and attention, while developing statistically valid tools to reveal brain connectivity patterns. Attention, decision making, and production of abstract sequences are key components of human mental activities. Deficits in these functions are common in both neurological and psychiatric disorders and can result in a wide range of higher-order behavioral deficits, including anxiety.

**COBRE Center for Computational Biology of Human Disease:** This center builds on the joint promise that personalized genomic medicine and novel analyses of big data are key elements in the identification and treatment of human disease. Sequencing a genome, a transcriptome, or even 100 of them is a routine procedure available to most researchers. However, converting these raw data into meaningful information is the new challenge generated by the progress in genomics. The underlying principle of this center is that close collaboration between empirical and computational biologists with common challenges in the analysis of large data sets can accelerate the implementation of translational medicine. The long-term goal of the center is to establish and grow a nexus of computational biology infrastructure for the greater Brown and hospital environments that will benefit all of Rhode Island.

**COBRE Center for Neuromodulation:** The COBRE Center for Neuromodulation is centered at Butler Hospital. This COBRE supports three highly promising junior investigators who are using methods of noninvasive brain stimulation (transcranial magnetic and transcranial electrical stimulation) and neuroimaging tools (structural and functional MRI). They work together on clinical-translational research on brain circuits relating to symptoms and dimensions of illness. Their areas of interest focus on impulsive behavior, post-traumatic stress disorder, and obsessive-compulsive disorder. They are using and fine-tuning tools that can be applied to other brain disorders, including Alzheimer’s disease and dementia.

**CardioPulmonary Vascular Biology COBRE:** The vision of the CardioPulmonary Vascular Biology Center of Biomedical Research Excellence is to advance understanding of vascular diseases affecting the pulmonary and cardiovascular systems. This vision will be accomplished
through research performed by a multidisciplinary group of outstanding investigators who are using cutting-edge tools to understand the pathobiology of vascular diseases. A goal of the COBRE is to expand the CardioPulmonary Vascular Biology Center into new research areas and thereby enhance and broaden vascular biology research at collaborating institutions. Given the vital role of the circulatory system in brain health, and the role of cardiovascular risk factors in the development of dementia, extending this center's research to Alzheimer's disease and dementia is a natural evolution that also promises to yield substantial benefit to understanding and treating these disorders.

**COBRE for Stem Cells and Aging:** This COBRE focuses on neural and hematopoietic stem cells, their microenvironments and the impact of aging, fibrosis, and senescence on their regulation and evolution to diseases of the central nervous system and bone marrow. Two projects supported by this COBRE are directly relevant to Alzheimer's disease.

**Center Director: Position description, qualifications and application instructions**

**Description**
The Robert J. and Nancy D. Carney Institute for Brain Science at Brown University invites applications from rising and established leaders in Alzheimer's disease research for the position of Center Director for the Center for Alzheimer’s Disease Research, with a tenured faculty appointment at the Associate or Full Professor level. A founding gift to Brown University has catalyzed the establishment of the Center for Alzheimer’s Disease Research housed within the Carney Institute. We seek a successful scientist and inspiring leader to guide this growing initiative. The incumbent will receive a tenured academic appointment(s) in a Carney Institute-affiliated department; a clinical appointment in a clinical department is also encouraged where appropriate. A list of departments can be found here.

The successful applicant will be an M.D., M.D./Ph.D., or Ph.D. with an outstanding record of leadership, research and mentorship that spans clinical and foundational research. Any research area will be considered that contributes to the mission of the Center, the Carney Institute, and the home department. Applicants are expected to pursue research that will impact clinically relevant knowledge and improved therapeutics for Alzheimer’s disease and related dementias. The successful Center Director will have a bold purpose-driven mission that builds on existing expertise and resources at Brown and will demonstrate a commitment to diversity and inclusion in the brain sciences.

The Center for Alzheimer’s Disease Research was established in 2021 with a mission to facilitate communication and collaboration among the many successful research and clinical programs already at Brown and Brown’s affiliated hospitals. Existing research strengths include the study of Alzheimer’s disease risk genes, mechanisms of neurodegeneration, the biology of aging, and neuron-glia interactions. Clinical and public health experts have international reputations in population studies, diagnosis, treatment, and clinical trials.
The Carney Institute promotes discovery and innovation in brain science by supporting a richly diverse community of experimentalists, theorists, engineers, and clinicians. We are a highly interactive community that values collaborative approaches to tackle major questions in brain science to benefit society. Excellence in research and scholarship is central to our mission and depends on engaging talented scientists from across academia and embracing their contributions in a fully inclusive community. Every aspect of our plan for the Institute will incorporate this vision. The Carney Institute fosters diversity and inclusion to ensure quality and impact of our research, and is aligned to Brown’s commitment “Pathways to Diversity and Inclusion: An Action Plan for Brown University.”

Qualifications
Applicants must have an M.D., M.D./Ph.D., or Ph.D. with an established research program and track record of research success appropriate for a tenured academic appointment. Applicants must also have a progression of leadership responsibilities. For appropriate candidates with interest in maintaining clinical practice, an appointment could include clinical responsibilities of up to no more than 25% of total effort. Anticipated start date is July 1, 2022.

Application Instructions
Candidates must submit: (1) a center vision statement, (2) a leadership statement; (3) a research statement; (4) a diversity and inclusion statement; (5) a teaching, training and mentorship statement; (6) a curriculum vitae; (7) links to 3 to 5 publications of particular importance; and (8) a cover letter describing their interest in the position (including field of research and potential departments of interest). Candidates should provide the names of three references; these references will not be contacted without prior authorization from the candidate. Inquiries about the position should be directed to carney-institute@brown.edu.

Full consideration will be given to applications received by December 15, 2021; we will continue to accept applications until the position is filled. Brown is an equal opportunity/affirmative action employer, and members of underrepresented groups in brain science are strongly encouraged to apply.

Application Process
This institution is using Interfolio's Faculty Search to conduct this search. Applicants to this position receive a free Dossier account and can send all application materials, including confidential letters of recommendation, free of charge. Apply now.
Carney

Research that benefits humanity

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The Carney Institute’s pioneering work is driving discovery that promises to improve the quality of life for people affected by brain disorders and injury and help us understand the complexities of the brain. The Institute supports research in five key areas:

- Alzheimer’s disease
- Cognition and behavior
- Computational brain science
- Neurobiology of cells and circuits
- Neuroengineering and neurotechnology

Learn more about Carney’s research centers and initiatives. Visit brown.edu/carney.

Connect with us!
401-863-7421 | carney-institute@brown.edu
Carney Research Centers and Initiatives

Center for Alzheimer’s Disease Research
The Center for Alzheimer’s Disease Research is committed to advancing early detection and individualized treatment for Alzheimer’s disease and related dementias.

COBRE Center for Central Nervous System Function
Now in a second five-year phase of NIH funding, the COBRE Center for Central Nervous System Function focuses on the brain processes that underlie attention, decision-making and action.

Center for Computational Brain Science
The Center for Computational Brain Science harnesses Brown University’s world-class expertise in computational modeling, computer science, cognition and systems neuroscience.

Center for the Neurobiology of Cells and Circuits
The Center for the Neurobiology of Cells and Circuits advances the understanding of the function of neural circuits, building on a foundation of genetic, molecular and cellular approaches.

Center for Translational Neuroscience
The Center for Translational Neuroscience links the Carney Institute and the Brown Institute for Translational Science, and starts with patients, using genetics to inspire novel understanding of the mechanisms underlying brain disease.

Center for Vision Research
The Center for Vision Research promotes research on the biological mechanisms that allow us to see, and advances computational and machine vision.

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