Wisconsin ADRC
REC Scholar Program

Wisconsin Alzheimer's Disease Research Center
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

PROGRAM DESCRIPTION

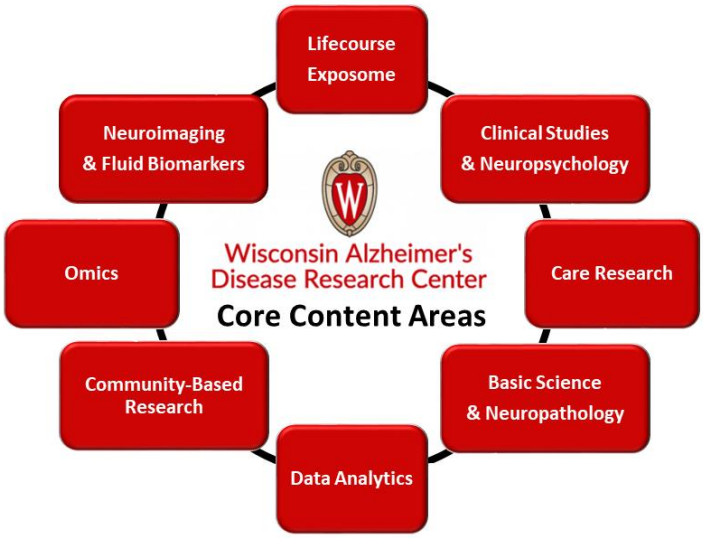
REC (Research Education Component) Scholars are exceptional early-career investigators who will be supported in their development into independent researchers working on Alzheimer's disease and related dementias. This program supports AD training for individual researchers and to facilitate development of skills in basic, clinical, and translational research.

The goal is to deliver a rigorous mentored training program to ensure the research proficiency in broad-based Alzheimer's disease and related dementias research and specific training in the ADRC's theme of multi-modal biomarkers and diverse life-course exposome.

Approximately **2-3 junior faculty or scientists and 2-3 postdoctoral fellows** will be competitively selected to participate in the 2-year program which is expected to run from June 2026-May 2028.

THE PROGRAM WILL INCLUDE

- Training in core research competencies necessary for success as an independent scientist
- Training in basic, clinical, and translational research concepts necessary for further innovative research on AD
- Mentorship to advance research independence
- Meetings to introduce ADRC Core leaders and resources
- 50K over two years to support a research project
- 30K over two years to support a research project for post-doctoral scholars



ELIGIBILITY REQUIREMENTS

- Junior faculty, postdoctoral fellow, or scientist
- Have an appointment at UW–Madison
- For Junior faculty, must have a minimum of 20% protected research time to conduct project
- Have research aims that can be connected to or benefit Alzheimer's disease and related dementias research and align with the National Alzheimer's Project Act
- Applicants who have a NIH career award or similar are preferred, but this is not required.

OTHER CONSIDERATIONS

- This program is not primarily intended to provide salary support for the applicant, although small, justified requests are acceptable.
- In general, we expect that applicants will be able to demonstrate that they have protected time to conduct their project and engage in training.
- Applicants who have previously been awarded an NIH R01 as PI or MPI, or a similar award, are NOT eligible. Applicants may have an NIH R01 grant (or similar) application under review at the time of their application.
- REC support is intended for U.S. citizens and permanent residents.

EXPECTATIONS AND TRAINING ACTIVITIES

Research Core Competencies
• Scientific Concepts and Research Design
• Ethics & Participant Safety
• Regulatory
• Clinical Trials Operations
• Study and Site Management
• Data Management and Informatics
• Leadership and Professionalism
• Communications
• Teamwork and Team Science
• Stakeholder Engagement

The REC will provide personalized, competency-based training for REC Scholars. We have adapted Sonstein and Jones' competencies[12] to form the foundation of an outcomes-based education. Proficiency in these research competencies will be achieved through a blend of self-directed modules, seminars, workshops, and experiential activities. Scholars will gain knowledge in ADRD research through didactics, interaction with other scholars and faculty in the Wisconsin ADRC and nationally, as well as by conducting their own research projects. By creating a cohort of Scholars who learn new skills together and providing opportunities for networking, we expect benefits that last past completion of this program, including that Scholars become peer mentors and collaborate in future studies. By participating in a variety of seminar series and workshops, we also expect that Scholars will integrate with other researchers from across campus and nationally and will develop research collaborations that draw others into ADRD research.

REQUIRED TRAINING ACTIVITIES

- **Mentoring and Career Coaching:** Scholars will meet regularly with 2-3 named mentors with complementary skills.
- **Create an IDP:** With their mentors, scholars will create an individualized development plan (IDP).
- **Tailored instruction in Scientific Concepts in ADRD research:** To ensure comprehensive training, REC leaders in collaboration with the ADRC Cores, have identified eight ADRC content/concentration areas for development. **Wisconsin ADRC REC Scholars are expected to identify 2-3 content areas, and propose in depth training in selected content areas, under the guidance of a mentorship team.**
- **Meet ADRC Core Leaders:** Via bi-monthly meetings, scholars will hear from the Wisconsin ADRC Core Leaders in a small group setting on the goals, operation, and outcomes of their ADRC Core. We aim to ensure scholars integrate with the ADRC, and understand ADRC operations, preparing them for their own future leadership roles.
- **Mentored Research Project:** Faculty-level Scholars receive 25K per year (50K over two years) to support a mentored research project, training, travel to research conferences and annual travel to an ADRC meeting. It is the responsibility of the applicant to obtain all relevant approvals (e.g., IRB) at the time of application.

Awardees must include a project progress report in the Wisconsin ADRC's annual NIH RPPR (typically due by early January for both years of the funding cycle).
Postdoctoral fellows will receive 15K per year (30K over two years) to conduct a mentored research project in their advisor's lab, travel to a research conference and travel to an ADRC meeting.

- **Attendance at the National ADRC Meeting (annual):** Scholars will attend at least one ADRC meeting in each of the two years as a Scholar. In-person attendance is recommended.
- **Data Presentations:** Scholars will present at one ADRC seminar series and/or the Wisconsin Alzheimer's Disease Research Day. REC scholars will present a research update to other Scholars and faculty mentors to obtain feedback on their work and to foster cross-disciplinary learning.

ADDITIONAL TRAINING OPPORTUNITIES

- **Mentored Research Scholars Seminar Series/UW Institute for Clinical and Translational Research (ICTR) (monthly):** This provides junior researchers with training in the core competencies of research.
- **Wisconsin ADRC Biostatistics Seminar Series (monthly):** Sessions on GLM principals, clinical trial design, machine learning, and big data approaches.
- **Wisconsin ADRC Seminar Series (every two weeks):** This series includes presentations by faculty and guest speakers; topics span the ADRC core content areas.

Representative Research Competency Training Topics	
Mentored Research Scholars Core Seminar Series	Advanced Fellowship in Women's Health Seminar Series
Mentee & Mentor Training	Grant Writing
The NIH Peer Review Process	Manuscript Writing
Responsible Conduct of Research	Promotion and Tenure
Informatics / Biostatistics	Communications
Team Science	Working with Conceptual Models

SELECTION PROCESS

Applications are evaluated on the following criteria:

- Quality of the proposed scientific investigation and its significance for the field of Alzheimer's disease and related dementias research
- Need for training in Alzheimer's disease and dementia research
- Quality of proposed training plan and mentors
- Overall impact and public health significance
- Potential of the proposal to attract future NIH and other grant funding
- Qualifications and background of the applicant
- Vetted by the REC advisory panel to determine readiness to lead a research project and meet aims of the program

HOW TO APPLY

- **Interested candidates should complete the REDCap application (link) by midnight on February 20, 2026**.
- We will contact all applicants regarding scholar selection by May 8, 2026.
- The REC Scholar Cycle will begin in June 2026 and continue through May 2028.
- If you are a scientist, please choose the track that feels the most appropriate for your career level and goals.

Junior Faculty Application Requirements	**Post-Doctoral Fellow Application Requirements**
Training Plan/Career Development Plan (500-word limit)	Training Plan/Career Development Plan (500-word limit)
Letter of support from chair or division chief confirming minimum of 20% protected research time to conduct project	Letter of support from their primary advisor stating they approve of this submission and the proposed project, which would be conducted in their lab.
NIH Biosketch (5-page limit)	NIH Biosketch (5-page limit)
Abstract (500-word limit)	Abstract (500-word limit)
2-3 specific aims for the project that the 50K will support (1 page limit)	2-3 specific aims for the project that the 30K will support (1 page limit)
Research plan (3-page limit)	Research plan (3-page limit)
Budget (NIH format budget page and justification)	Budget (NIH format budget page and justification)

If you have questions, please email Sheryl at sspensley@medicine.wisc.edu

CORE CONTENT INFORMATION

Table 3. Content Areas: Training Topics	
Content area	**Training topics**
Life Course Exposome	Social contextual factors across the life course; neighborhood disadvantage; demography; mapping; environmental exposures (e.g., pollution); stress.
Clinical and Neuropsychology	Cultural issues in test interpretation among elderly from underrepresented groups; differential diagnosis of dementia; theoretical underpinnings of the UDS, the ADAS Cog, and computerized tests; valid interpretation of emergent cognitive change in the context of repeated longitudinal assessment; test selection considerations for early detection.
Care Research	Engineering-based methodology for care intervention design and feasibility assessment; implementation and dissemination research; practical and ethical considerations for enrolling persons with advanced AD and their caregivers in research; geospatial analytics for assessing exposure; rigor in harnessing the electronic health record.
Basic Science & Neuropathology	Biochemical/cellular/molecular mechanisms of learning/memory and neurodegeneration; animal models of AD; induced pluripotent stem cells for modeling AD; drug discovery; biological underpinnings of dementia; staging AD neuropathology; synucleinopathies; LATE, FTLD.
Neuroimaging and Fluid Biomarkers	Basics of MRI and molecular imaging; ATN research framework and new developments; novel methods (novel PET tracers, connectomic analysis), computational approaches; predicting transition from preclinical to clinical stages of AD; interdisciplinary applications of neuroimaging (health disparities research, socioeconomic contextual disadvantage); CSF biomarkers: utility, limitations, and applications in research and clinical use; applying the AD research framework; developing biomarker cut-offs; biomarker development. fluid biomarker state of the field, novel developments, developments in blood biomarkers, pre-analytic factors, standardization, confounds, interpretation, clinical use, experiences of marginalized and racialized groups in biomarker research.
Data Analytics	Research design; fundamentals of data analysis; data management; experimental design in basic science; optimizing clinical trials; computational approaches for big data/precision medicine; maximizing the utility of large shared data sets; rigor and reproducibility; internal and external validity; theoretical frameworks in community based participatory research, analytic considerations in exposome studies; geoanalytics.
Community Based Research	Community based participatory research; stakeholder engagement strategies; rural outreach; building trust - becoming a culturally informed investigator; mixed methods approaches to developing and refining research questions; recruitment and retention - building and maintaining longitudinal cohorts.
Multi-Omics	Biological underpinnings of aging/dementia; bioinformatics approaches to quality control and analysis of omic data; single-cell omic analysis; personalized medicine; biomarker development; course content in genomics, proteomics, metabolomics, lipidomics, transcriptomics, microbiome, foodomics, exposome, cross-omic integration and analysis.

LOOKING FOR A MENTOR?

Table 5. Content leaders and example faculty available to provide content area instruction and/or mentoring

Name / Title / Department	Research Focus
Life course exposome	
Amy Kind, MD, PhD, Associate Dean for Social Health Sciences, Medicine, **Content leader** ‡	Mechanistic health disparities research, social exposome
Ryan Powell, PhD, Assistant Professor, Medicine, **Content leader** ‡	Social exposome, occupational exposure, veteran health, pollution
Jason Fletcher, PhD, Professor of Public Affairs, Population Health Sciences	Early life conditions and later life health, cognition, and mortality
Lauren Schmitz, PhD, Assistant Professor, Public Affairs, La Follette School ‡	Social inequalities and disparities in health
Megan Zuelsdorff, PhD, Assistant Professor, Nursing ‡	Stress and resilience, health disparities
Will Buckingham, PhD, Director of Geospatial Operations, CHDR ‡	Geographic information science, health, and place
Clinical and Neuropsychology	
Nathaniel Chin, MD, Assistant Professor, Medicine, ADRC Medical Director, **Content leader** ‡	Modifiable factors, resilience, clinical care
Lindsay Clark, PhD, Assistant Professor, Medicine, **Content leader** ‡	Disclosure of research results, remote cognitive testing, telemedicine
Ozioma Okonkwo, PhD, Professor, Medicine ‡	Modifiable factors, physical activity
Mary Wyman, PhD, Clinical Associate Professor, Psychiatry ‡	Mental health, veteran health, health disparities
Jane Paulsen, PhD, Professor, Neurology ‡	Huntington's disease, vascular cognitive impairment, prevention
David Plante, MD, PhD, Associate Professor, Psychiatry ‡	Sleep medicine and psychiatry, AD biomarkers, dementia
Care Research	
Andrea Gilmore-Bykovskyi, PhD, RN, Associate Professor, Emergency Medicine, **Content leader** ‡	dementia care and caregiving, research equity, lucidity in advanced dementia
Nicole Rogus-Pulia, PhD, CCC-SLP, Assistant Professor, Medicine ‡	Dysphagia, quality of life, interventions to improve patient care
Nicole Werner, PhD, Associate Professor, Engineering	Care systems, safety, health information technology, care transitions
Lisa C. Bratzke, PhD, RN, Associate Professor, Nursing	Self-management of chronic conditions, rural community brain health
Basic Science and Neuropathology	
Luigi Puglielli, PhD, Professor, Medicine, **Content leader** ‡	Biochemical mechanisms of neurodegeneration, drug development
Tyler Ulland, PhD, Assistant Professor, Pathology & Lab Medicine, **Content leader** ‡	Innate immune response to Alzheimer's disease
Rozalyn Anderson, PhD, Professor, Medicine ‡	Biology of aging, calorie restriction
Anita Bhattacharyya, Associate Professor, Cell and Regenerative Biology ‡	Down syndrome, stem cell research
Craig Atwood, Professor, Medicine ‡	Hormonal mechanisms, cell-cycle signaling, drug development
Corinna Burger, PhD, Associate Professor, Neurology	Cellular/molecular mechanisms of memory, AD/PD
Federico Rey, Associate Professor, Bacteriology	Gut microbiome in AD, atherosclerosis, gnotobiotic animal studies
Krishanu Saha, Associate Professor, Biomedical Engineering	Human cell engineering, gene editing, epigenetic reprogramming
Mariana Pehar, Assistant Professor, Medicine ‡	Molecular mechanisms of neurodegeneration, role of astroglia
Shahriar Salamat, MD, PhD, Professor, Pathology & Lab Medicine ‡	AD neuropathology
Data Analytics	
Yue Ma, PhD, ADRC Data Core Co-lead, Medicine, **Content leader** ‡	Advanced methods for longitudinal data analysis, testing mediation, and psychometrics
Jomol Mathew, Assoc Dean, Informatics & IT, UW School of Med & and Public Health, **Content leader**	Development of tech, platforms, and analytics for improving health
Vikas Singh, PhD, Professor, Biostatistics and Medical Informatics,	Machine learning, pathology spread, neuroimaging, harmonization
Richard Chappell, PhD, Professor, Biostatistics and Medical Informatics ‡	Clinical trial design, analysis, nonparametric survival analysis
Menggang Yu, Professor, Biostatistics and Medical Informatics	Social exposome, risk prediction, clinical biostats, treatment selection
Reid Alisch, PhD, Associate Professor, Neurosurgery ‡	DNA methylation, hydroxymethylation, environmental, AD

Table 5 Continued

Name / Title / Department	Research Focus
Community Based Research	
Carey Gleason, PhD, Professor, Medicine, **Content leader** ‡	Risk/resilience in African Americans, partnership with Oneida tribe
Maria Mora Pinzon, MD, Assistant Professor, Medicine, **Content leader** ‡	Dementia in LatinX communities, care access
Dorothy Farrar-Edwards, PhD, Professor, Kinesiology, and Medicine ‡	Precision medicine, caregiver burden, health disparities
Jane Mahoney, MD, Professor, Medicine	CBPR, partnering community and academic researchers, falls
Shenikqua Bouges, MD, Assistant Professor, Medicine ‡	Trust in medical researchers, community outreach interventions
Multi-Omics	
Corinne Engelman, PhD, Vice Chair, Professor of Population Health Sciences, **Content leader** ‡	Genetics/metabolomics/environmental factors
Daifeng Wang, PhD, Assistant Professor, Biostats and Medical Informatics, **Content leader**	Modeling of multi-omic data, psychiatric symptoms in AD
John Denu, PhD, Professor, Bimolecular Chemistry ‡	Epigenetics, metabolism
Joshua Coon, Professor, Chemistry	Biomarkers and mechanisms, mass spectrometry
Lingjun Li, PhD, Professor, School of Pharmacy ‡	Biomarkers and mechanisms, mass spectrometry, glycoproteome
Neuroimaging and Fluid Biomarkers	
Leonardo Rivera-Rivera, PhD, Medicine, **Content Leader** ‡	Blood flow imaging, vascular contributions to cognitive impairment
Cynthia Carlsson, MD, Professor, Medicine, **Content leader** ‡	Clinical trials, vascular dysfunction, fluid biomarkers
Sterling Johnson, PhD, Professor, Medicine ‡	ATN and cohort studies, neuroimaging and fluid biomarkers
Henrik Zetterberg, MD, PhD, Visiting Professor, Medicine ‡	Biomarker discovery, neurodegenerative disease, TBI
Bradley Christian, PhD, Professor, Medical Physics ‡	PET imaging in AD, Down Syndrome and LOAD
Andrew Alexander, PhD, Professor, Medical Physics	Diffusion-weighted imaging, aging and AD
Catherine Gallagher, MD, Professor, Neurology ‡	Parkinson's, movement disorders, neuroimaging, novel biomarkers
Barbara Bendlin, PhD, Professor, Medicine ‡	Modifiable factors, neuroimaging, neurodegeneration, exposome
Jill Barnes, PhD, Associate Professor, Kinesiology ‡	Cerebral blood flow regulation, aging and dementia
Vivek Prabhakaran, MD, PhD, Professor, Radiology	Connectomics, stroke, aging, AD
Tobey Betthauser, PhD, Assistant Professor, Medicine ‡	PET imaging in AD, novel modeling