



### Division of Geriatric Medicine and Palliative Care 2024 Summer Research Program in Aging

December 14, 2023

Dear Medical Students,

The NYU Grossman School of Medicine Division of Geriatric Medicine and Palliative Care is excited to announce our ninth annual summer research program for medical students. The Division of Geriatrics and Palliative Care will be offering up to 16 Research Assistant positions on aging-related research projects under the guidance of faculty throughout the NYU Grossman School of Medicine. Students will be paired with a faculty mentor on an aging-related project of their choice. The Summer Research Program in Aging will run for a total of 8 weeks, beginning in June. During this time, students will attend weekly didactic sessions that focus on career development and topics on research, and geriatrics and palliative care. Students will also gain exposure to clinical geriatrics practice by shadowing physicians at the 41<sup>st</sup> Geriatrics Consult Ambulatory Clinic, Bellevue Geriatrics Clinic, shadowing on the inpatient consult service at Tisch Hospital, and observing cognitive clinical exams. Students will have the opportunity to attend the annual American Geriatrics Society meeting to present their research as a poster presentation. All accepted students will receive an NIA-funded stipend of approximately \$2196 per month.

The pages below contain information on projects offered through the Summer Research Program in Aging at NYU Grossman School of Medicine and details on how to apply. We hope you find this opportunity as exciting as we do. We look forward to working with you to arrange for an educationally challenging and rewarding research experience.

Best of luck in your summer planning and we look forward to hearing from you!

Sincerely,

Joshua Chodosh, MD, MSHS, FACP Michael L. Freedman Professor of Geriatric Research in Medicine Director, Division of Geriatric Medicine and Palliative Care Professor of Medicine and Population Health NYU Grossman School of Medicine

Nina L. Blachman, MD, MHPE Associate Professor Geriatrics Fellowship Director NYU Grossman School of Medicine Division of Geriatrics and Palliative Care

Steven B. Abramson, MD Chair, Department of Medicine Senior Vice President and Dean for Education, Faculty and Academic Affairs

## How to Apply to the Summer Research Program in Aging

The NYU Summer Research Program in Aging is one of seven National Training Sites that offer aging-related research projects to medical students. Applications are submitted directly to each Training Site. The application form is brief and asks for biographical information and a short personal statement. A recommendation letter from a mentor at your Home Institution is also required. NYU program administrators and Drs. Joshua Chodosh and Emily Johnston are available to help you with the application process.

Applications are available <u>via REDCap</u> and must be submitted no later than **January 29**, **2024 at 5pm eastern time**.

Accepted students will be notified no later than March 1, 2024.

#### **Program Administrators:**

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### Emily Johnston, PhD, MPH, RDN, CDCES

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# Summer Research Program in Aging: Projects and Faculty Mentor

Mentor	# of students	Project Description
Ab Brody Mathy Mezey Professor of Geriatric Nursing Associate Director, Hartford Institute for Geriatric Nursing	1	<b>ED-LEAD: Emergency Departments LEading the transformation of Alzheimer's and Dementia care Telephonic Arm Implementation</b> This project will examine the implementation of a 6-month telephonic care program to support persons living with dementia and their care partners who vis the emergency department.
Joshua Chodosh Michael L. Freedman Professor of Geriatric Research in Medicine Director, Division of Geriatrics and Palliative Care Professor, Department of Medicine Professor, Department of Population Health NYU Grossman School of Medicine	2	Program of Intensive Support in Emergency Departments (POISED) for Care Partners of Cognitively Impaired Patients In a randomized clinical trial of Emergency Department patients and their care partners, we collected baseline information on cognitive symptoms, function and psychosocial states among those who screened positive for cognitive impairment. We also assessed root causes for their ED use. Because this trial was conducted before and during COVID-19, our summer student will have the opportunity to examine differences in these measures before and during the pandemic and investigate reasons for identified differences.
Lan Doan Assistant Professor, Department of Population Health at NYU Grossman School of Medicine	1	<b>Increasing civic engagement among Asian American Communities</b> Poor mental health represents a major obstacle to healthy aging has been linked to late in life depression, social isolation, and loneliness. The burden of social isolation and loneliness disproportionately affects older adults, immigrants, and minoritized racial/ethnic communities, including Asian Americans. Asian Americans are the fastest growing racial/ethnic group in the general population and fastest growing among older adult populations in the US. However, these socially disadvantaged populations are often absent or underrepresented in clinical research and limited research has explored loneliness and isolation. There is high social isolation and loneliness among Asian Americans, which increases risk for of Alzheimer's Disease and related dementias (ADRD). Older Asian Americans are a particularly vulnerable population that experience severe economic and language challenges due to limited English proficiency (LEP), poverty, and low education levels. Civic engagement can be a driver of thriving across the life course, overall cardiometabolic and mental

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		health-related outcomes. Examples of civic engagement activities include volunteering, community service, and political engagement. Interventions focused on increasing civic engagement and sense of community have been positively associated with improved life satisfaction and meaning in life. However, much of the literature has not included minoritized and LEP communities. Community-developed interventions increasing civic engagement thus has the potential to address social isolation and loneliness, as well as promote healthy aging by delaying, preventing, and managing cardiometabolic and mental health conditions. This feasibility study will inform the design of community-engaged, evidence-based R01 intervention focused on increasing civic engagement to address systems- (immigration, social/built environments) and individual-level health (social isolation, loneliness, cardiometabolic and mental health disparities) among Asian American immigrant populations. This study will employ a mixed-methods approach with a scoping review, health survey and key informant interviews to assess cardiometabolic and mental health disparities among Asian American adults ages 50 years and older in NYC and to examine the landscape and perceptions towards civic engagement interventions (e.g. gardening, politic engagement), outcomes (e.g., social isolation, loneliness, cardiometabolic and mental health), and assess the context of interventions (i.e., community dwelling sample, language, ethnicity). Students will have the opportunity to conduct activities including, systematic literature reviews to identify gaps in the knowledge base related to evidence-based programming for Asian American older adults and current status of loneliness and social isolation among NYC Asian American older adults, engage with community partners, data collection of specific health status and health disparities issues and analysis to explore healthy aging priorities for older adult populations in NYC. Prior data analysis skills and/or qualitative skills are
John Dodson	1	RESILIENT trial
Associate Professor,		The RESILIENT trial is testing whether mobile health cardiac rehabilitation (mHealth-
Department of Medicine		CR) improves functional capacity and quality of life among older adults with ischemic
Associate Professor,		heart disease. This is a pivotal trial of mHealth in an understudied population. Trial
Department of Population		link: https://clinicaltrials.gov/study/NCT03978130.
Health at NYU Grossman		
School of Medicine		
Director, NYU Cardiovascular		
Digital Health (CDH) Lab		

Director, Geriatric Cardiology Program		
Adam Faye Assistant Professor, Department of Medicine, Department of Population Health at NYU Grossman School of Medicine	1	Quality of Life Among Older Adults with IBD In this study, we will examine differences in quality of life between younger and older adults with IBD (validated survey based assessment in the clinic). We will control for a number of clinically relevant variables (e.g., disease severity, IBD subtype, comorbidities), in order to assess baseline differences in quality of life between our cohorts.
Ula Hwang Member of the Faculty, Ronald O. Perelman Department of Emergency Medicine at NYU Grossman School of Medicine Member of the Faculty, Department of Population Health at NYU Grossman School of Medicine Medical Director, Geriatric Emergency Medicine	1	Evaluation of Geriatric Emergency Department Care impact across multiple healthcare systems Descriptive comparison of geriatric emergency department care across multiple EDs at 4 healthcare systems.
Emily Johnston Research Assistant Professor MSTAR Program Coordinator Division of Geriatric Medicine Department of Medicine NYU Grossman School of Medicine	1	<b>The Role of Diet in Dementia Prevention</b> Modifiable risk factors are important targets for dementia prevention and may also play a role in symptom severity. A key to better evidence for the role of diet is an accurate and efficient diet assessment strategy that is reliable and can be replicated. This study is an important first step in the use of diet assessment for future intervention studies. We will use a cross-sectional design to assess Mediterranean- DASH diet intervention for neurodegenerative delay (MIND) diet scores and biomarkers of fruit and vegetable intake among 150 NYU ADRC active cohort participants. We will use a novel, validated instrument (Veggie Meter), to detect levels of carotenoids (colorful pigments found in brightly colored fruits and vegetables that have anti-inflammatory properties) to provide an objective measure of fruit and vegetable intake. Spectroscopy-based skin carotenoid measurement is non-invasive, painless and takes seconds to complete. We will administer the 15-item MIND diet screener via Research Electronic Data Capture (REDCap). We will evaluate the correlation between global cognition score based on cognitive testing administered as part of annual ADRC assessments and dietary intake from the MIND diet and spectroscopy measures. We will also evaluate how the subjective (MIND diet score)

Matthew Lee Assistant Professor, Department of Population Health at NYU Grossman School of Medicine	1	and objective (spectroscopy measures) diet assessment scores correlate with each other using the total MIND diet score and individual components of the MIND diet specifically related to intake of fruits and vegetables. <b>Systematic review of efforts to culturally adapt and implement cognitive</b> <b>screeners</b> With an explicit cultural adaptation and equitable implementation focus, conduct a structured systematic or scoping review of all efforts to culturally adapt and implement cognitive screeners. Would keep the boundaries tight on the review by requiring that it not only be an adaptation study, but also that they have some data on the actual implementation of the culturally adapted screener.
Arjun Masurkar Assistant Professor, Department of Neurology at NYU Grossman School of Medicine Assistant Professor, Department of Neuroscience and Physiology at NYU Grossman School of Medicine	1	Olfactory circuit dysfunction of early Alzheimer's disease using transgenic animal models Racial and ethnic differences in early Alzheimer's disease evolution and detection: a clinical study.
Mara McAdams DeMarco Member of the Faculty, Department of Surgery at NYU, Department of Population Health at NYU Grossman School of Medicine Associate Vice Chair for Research, Department of Surgery	1	<b>Frailty and Cognition in kidney transplantation</b> We study physiologic aging in kidney transplantation using our ongoing cohort study (2009-onwards).
Ravi Ramasamy Professor, Department of Medicine, Department of Biochemistry and Molecular Pharmacology at NYU Grossman School of Medicine Jennifer Scherer	1	<ul> <li>Mitochondrial mechanisms of cell injury in diabetes and aging</li> <li>This is a basic study using animal models, cell culture, and imaging techniques to determine how mitochondria interacts with other organelles to regulate energy metabolism and calcium in diabetic, aging, and failing hearts. Students will learn basic laboratory techniques to design key proof of concept studies and analyze omics data sets relevant for their research.</li> <li>Symptom Burden in Conservative Kidney Management</li> </ul>

Assistant Professor, Department of Medicine at NYU Grossman School of Medicine Medical Director, Lower Manhattan Dialysis Center		This study involves a chart review of patients seen in an ambulatory kidney palliative care clinic to study the change in symptom burden over time in the population seen. Student opportunities include chart review, data collection, data analysis and manuscript preparation. Students will also get to shadow the PI in clinical care. <u>https://med.nyu.edu/departments-</u> institutes/medicine/divisions/nephrology/research/kidney-cares-program
Aasma Shaukat Robert M. and Mary H. Glickman Professor of Medicine, Department of Medicine at NYU Grossman School of Medicine Professor, Department of Population Health at NYU Grossman School of Medicine Director, Outcomes Research, Division of Gastroenterology and Hepatology Co-Director, Translational Research Education and Careers (TREC)	1	Safety of antithrombotics in older adults undergoing colonoscopy Patients on antithrombotics are at increased risk of post colonoscopy complications. However, interruption can lead to thromboembolic events. We propose a retrospective chart review of patients on AT matched with patients not on AT for colonoscopy outcomes.
Scott Sherman Professor, Department of Population Health, Department of Medicine, Department of Psychiatry at NYU Grossman School of Medicine	2	<b>Cohort of Vaping Experiences Research (COVER)</b> We are creating a cohort of adults (including both older adults and young adults) who vape on a regular basis. This will include people vaping nicotine, cannabis and other substances. Participants will be recruited from a variety of sources and will undergo a baseline history and tests. The student will help to recruit participants.
Jasmine Travers Assistant Professor of nursing at NYU Rory Meyers College of Nursing	1	New York University Mega-Grants Initiative: "INTEGRATE: Improving Dementia Care Through a Person-Centered Care Intervention for Certified Nursing Assistants" Nursing home staff shortages are well known to be an important factor impacting both the quality of care that nursing home residents receive, their health outcomes, and healthcare worker outcomes. Staffing shortages are compounded by limited financial resources in nursing homes, especially for smaller nursing homes, which was further exacerbated by the COVID-19 pandemic. These staffing shortages disproportionately impact nursing home residents living with Alzheimer's disease and related dementias

(ADRD) as they require more time from staff compared to care for residents who do
not have ADRD. As the number of Americans living with ADRD increases, the need
for fully staffed nursing homes that can provide quality care for older adults living with
ADRD is now more important than ever. During public health emergencies, direct
funding to nursing homes has been proposed as an expedient way to prevent staffing
losses and maintain safety standards for residents. One federal policy mechanism
utilized by nursing homes during the COVID-19 pandemic was the Paycheck
Protection Program (PPP). The PPP loan program offers a unique natural experiment
by which to evaluate the effectiveness and efficacy of a program that directly funds
small businesses and in the case of this project, nursing homes, to maintain safe
staffing levels during public health emergencies. While PPP loans were effective
overall at keeping workers on the payroll across all US small businesses, it is unclear
if the effects of the program were equitable across nursing homes in
socioeconomically deprived neighborhoods which prior work from our team showed
have lower staffing rates. Using robust econometric methods and an exploratory
sequential mixed methods approach, the proposed project will assess the
effectiveness and equity of PPP funding by 1) examining changes in staffing patterns
and resident outcomes among nursing homes that received the PPP loans compared
to nursing homes that did not and evaluating whether changes in staffing patterns
and outcomes were equitable for those with ADRD living in the most
socioeconomically deprived facilities; 2) qualitatively exploring facility strategies,
tools, and social contexts that promoted resilience to declines in staffing and ADRD
resident outcomes after receipt of PPP, and 3) quantitatively assessing the extent to
which resilience strategies, cultures, and behaviors identified in Aim 2 are reflected in
administrative actions about staffing and care for residents with ADRD, and how
actions differed by neighborhood context. The overall goal is to develop a framework
by which to guide future nursing home responses to public health emergencies that
will improve staff patterns and subsequent ADRD outcomes in the most
socioeconomically deprived/lowest-resourced neighborhoods.
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Identifying Unmet Needs Driving Disproportionate and Avoidable Nursing
Home Placements among Black and Latino Persons Living With Dementia
The disproportionate rise in nursing home (NH) use among Black and Latino persons
living with dementia (PLWD) reflects the inadequacy of existing programs and
policies to support aging in place for the most vulnerable. Enabling aging in the
community and preventing avoidable NH placements is widely considered a priority

	by federal, state, and local entities along with families and older adults. Yet, it is unclear what is needed to support Black and Latino PLWD to remain in the community. While there are many plausible next steps to addressing this poorly understood problem, developing an instrument to identify which unmet needs are disproportionately driving avoidable NH placements is an important actionable step in reducing disparities among Black and Latino PLWD. The objectives of this 5-year proposed project are to 1) develop and test the feasibility, acceptability, reliability, and validity of an assessment instrument aimed at addressing the unmet needs that drive Black and Latino PLWD to experience avoidable NH placements at greater rates than their White counterparts using an exploratory sequential mixed methods research design, and 2) translate preliminary findings onto the public agenda as a policy issue. Aim 1 will use qualitative interviews to describe the unmet needs driving these placements. An integrative analysis of qualitative findings derived from Aim 1 will inform an unmet needs assessment instrument, IN-HOME (Identifying Needs to Help Older adults Maintain Everyday community living), that will be developed, refined and piloted in Aim 2 and psychometrically tested in Aim 3. Preliminary findings from this study will be used to generate actionable, evidence-based policy recommendations to address disparities in NH placements. Aligned with NIA's strategic priorities to address disparities experienced by minority older adults with Alzheimer's Disease or Related Dementias (ADRD), this study will form the basis for a subsequent R01 that will tailor IN-HOME for community-dwelling Black and Latino PLWD and investigate which actionable unmet needs place them at greatest risk for NH placements.
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