# CURRICULUM VITAE NICOLE MARIE ARMSTRONG

Department of Psychiatry and Human Behavior Warren Alpert Medical School Brown University Butler Hospital 345 Blackstone Boulevard, Box G-BH Providence, Rhode Island 02906 Email: <u>nicole\_armstrong@brown.edu</u>

### **EDUCATION**

Undergraduate	University of Maryland, College Park, Psychology, BS, 2005
	University of Maryland, College Park, Government/Politics, BA, 2005
Graduate	The Joseph L. Mailman School of Public Health of Columbia University, Epidemiology, M.P.H., 2013
	Johns Hopkins Bloomberg School of Public Health, Epidemiology, Ph.D., 2017

#### POSTGRADUATE TRAINING

FellowshipLaboratory of Behavioral Neuroscience, National Institute on<br/>Aging, 251 Bayview Blvd, Suite 100, Room 4B311,<br/>Baltimore, MD, 21224, Postdoctoral, 2017-2020

#### ACADEMIC APPOINTMENTS

Assistant Professor, Department of Psychiatry and Human Behavior, Warren Alpert Medical School, Brown University, 2020-present

#### **OTHER APPOINTMENTS**

Major Administrative Leadership Positions	Associate Director, Quantitative Science Program, Warren Alpert Medical School, Department of Psychiatry and Human Behavior, 2020 – present
	Associate Director, Design and Analysis Core, Center of Biomedical Research Excellence for Neuromodulation, Butler Hospital, 2020 - present
Grant Review	Action on Hearing Loss Discovery Research Grant, 2019
	Michael J. Fox Foundation for Parkinson's Research, Winter/Spring 2019

Associate Editor, Journal of Gerontology, Series A: Medical Sciences, 2021-present

### HONORS AND AWARDS

Women Scientist Advisors Committee Postdoctoral Travel	
Award (\$500), National Institute on Aging, 2019	
Nathan Shock Travel Award (\$500), National Institute on Aging	
2018	
3rd Place in Postdoctoral Student Category, 11th Annual	
Elizabeth L. Rogers Research on Aging Showcase, Johns	
Hopkins Bloomberg School of Public Health, 2018	
Pre-doctoral position on Training Grant (T32AG000247) on the	
Epidemiology and Aging Training Program, Johns Hopkin Center on Aging and Health, 2013-2017	IS
Delta Omega Scholarship for Applied Research, Johns Hopkins	
Bloomberg School of Public Health, 2016	
Student Travel Support Fund, Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, 2016	
Complimentary Registration, 2016 Alzheimer's Association International Conference	
Department of Mental Health Centennial Essay Contest	
Award, Department of Mental Health, Johns Hopkins	
Bloomberg School of Public Health, 2015	
Complimentary Registration, 6 <sup>th</sup> & 7 <sup>th</sup> International Worksho on HIV & Aging, 2015-2016	эр
Public Health & Alzheimer's Disease Graduate Scholarship, Alzheimer's Association and Centers for Disease Control	
and Prevention, 2015	
Travel Award, Gerontological Society of America, 2014	
1 <sup>st</sup> Place in Student Category, 7 <sup>th</sup> Annual Elizabeth L. Rogers	s
Research on Aging Showcase, Johns Hopkins Bloomberg School of Public Health, 2014	
MEMBERSHIP IN SOCIETIES	

International Society to Advance Alzheimer's Research and Treatment (ISTAART), 2015-2018, 2020-present Gerontological Society of America, 2014-2017, 2020-present Postdoctoral Chair, Women Scientist Advisors Committee, 2017-2020

# PUBLICATIONS LIST

# ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Huey ED, Armstrong NM, Momeni P, Grafman J. Challenges and new opportunities in the investigation of new drug therapies to treat frontotemporal dementia. Expert Opin Ther Tar. 2008;12:1367-76.

2. Huey ED, Koppel J, Armstrong NM, Grafman J, Floeter MK. The prevalence of psychiatric disorders in PLS and ALS. Amyotroph Lat Scl Fr. 2010;11(3):293-7.

3. Armstrong NM, Schupf N, Grafman J, Huey ED. Caregiver burden in frontotemporal degeneration and corticobasal syndrome. Dement Geriatr Cogn Disord. 2013;36(5-6):310-8.

4. Weiduschat N, Mao X, Hupf J, Armstrong NM, Lange D, Mitsumoto H, Shungu DC. Motor cortex glutathione deficit in ALS measured in vivo with the J-editing technique. Neurosci Lett. 2014;570C:102-7.

5. Armstrong NM, Meoni LA, Carlson MC, Xue QL, Bandeen-Roche K, Gallo JJ, Gross AL. Cardiovascular risk factors and risk of incident depression throughout adulthood: The Johns Hopkins Precursors Study. J Affect Disord. 2017;214:60-6.

6. Armstrong NM, Surkan PJ, Treisman GJ, Sacktor NC, Irwin MR, Teplin LA, Stall RC, Martin EM, Becker JT, Munro C, Levine AJ, Jacobson LP, Abraham AG. Association of long-term patterns of depressive symptoms and attention/executive function among older men with and without Human Immunodeficiency Virus. J Neurovirol. 2017;23(4):558-67.

7. Armstrong NM, Gitlin LN, Parisi JM, Carlson MC, Rebok GW, Gross AL. E Pluribus Unum: harmonization of physical functioning across intervention studies of older adults. PLoS One. 2017;12(7):e0181746.

8. Armstrong NM, Carlson MC, Schrack J, Xue QL, Carnethon MR, Rosano C, Chaves PHM, Gross AL. Late-life depressive symptoms as partial mediators in the associations between subclinical cardiovascular disease with onset of mild cognitive impairment and dementia. Am J Geriatr Psychiatry. 2018;26(5):559-68.

9. Power MC, Mormino E, Soldan A, James B, Yu L, Armstrong NM, Bangen K, Delano-Wood L, Lamar M, Lim YY, Nudelman K, Zahodne L, Gross AL, Mungas D, Widaman KF, Schneider J. Combined neuropathological pathways account for increased risk of dementia with age. Ann Neurol. 2018;84(1):10-22.

10. Armstrong NM, Carlson MC, Schrack J, Xue QL, Carnethon MR, Rosano C, Chaves PHM, Gross AL. Role of late-life depression in the association of subclinical cardiovascular disease with all-cause mortality: Cardiovascular Health Study. J Aging Health. 2019;31(4):652-66.

11. Armstrong NM, Surkan PJ, Treisman GJ, Sacktor NC, Irwin MR, Teplin LA, Stall RC, Jacobson LP, Abraham AG. Optimal metrics for identifying long term patterns of

depression in older HIV-infected and HIV-uninfected men who have sex with men. Aging Ment Health. 2019;23(4):507-14.

12. Armstrong NM, Gitlin LN, Parisi JM, Roth DL, Gross AL. Association of physical functioning of persons with dementia with caregiver burden and depression in caregivers: an integrative data analysis. Aging Ment Health. 2019;23(5):587-94.

13. Armstrong NM, An Y, Beason Held L, Doshi J, Erus G, Ferrucci L, Davatzikos C, Resnick SM. Predictors of neurodegeneration differ between cognitively normal and subsequently impaired older adults. Neurobiol Aging. 2019;75:178-186.

14. Armstrong NM, Huang CW, Williams OA, Bilgel M, An Y, Doshi J, Erus G, Davatzikos C, Wong DF, Ferrucci L, Resnick SM. Sex differences in the association of amyloid and longitudinal brain volume change in cognitively normal older adults. Neuroimage Clin. 2019;22:101769.

15. Armstrong NM, An Y, Beason Held L, Doshi J, Erus G, Ferrucci L, Davatzikos C, Resnick SM. Sex differences in brain aging and predictors of neurodegeneration in cognitively healthy older adults. Neurobiol Aging. 2019;81:146-156.

16. Bangen KJ, Armstrong NM, Au R, Gross AL. Metabolic syndrome and cognitive trajectories in the Framingham Offspring Study. J Alzheimers Dis. 2019; 71(3):931-943.

17. Williams OA, An Y, Armstrong NM, Shafer AT, Helphrey J, Kitner-Triolo M, Ferrucci L, Resnick SM. Apolipoprotein ε4 allele effects on longitudinal cognitive trajectories are sex- and age-dependent. Alzheimers Dem. 2019; 15(12):1558-1567.

18. Armstrong NM, Bangen KJ, Au R, Gross AL. Associations between midlife but not late-life, elevated coronary heart disease risk and lower cognitive performance: results from the Framingham Offspring Study. Am J Epidemiol. 2019;188(12):2175-2187.

19. Armstrong NM, An Y, Doshi J, Erus G, Ferrucci L, Davatzikos C, Deal JA, Lin FR, Resnick SM. Midlife hearing loss as a risk factor of neurodegeneration of temporal lobar structures: Baltimore Longitudinal Study of Aging. JAMA Otolaryngol Head Neck Surg. 2019;145(9):794-802.

20. Armstrong NM, Andrews R, Gross AL, Varma VR, Xue QL, Carlson MC. The association of a novel cognitive frailty index and physical functioning in older adults: The Baltimore Experience Corps Trial. Aging Ment Health. 2020;24(1):129-136.

21. Armstrong NM, Deal JA, Kritchevsky S, Pratt S, Harris T, Barry LC, Simonsick EM, Lin FR. Associations of hearing loss and depressive symptoms with incident disability in older adults: Health, Aging, and Body Composition Study. J Gerontol A Biol Sci Med Sci. 2020;75(3):531-536.

22. Armstrong NM, An Y, Ferrucci L, Deal JA, Lin FR, Resnick SM. Temporal sequence of peripheral auditory processing with cognition in the Baltimore Longitudinal Study of Aging. J Gerontol A Biol Sci Med Sci. 2020;75(3):574-580.

23. Armstrong NM, Espeland MA, Chen JC, Masaki K, Wactawski-Wande J, Li W, Gass MLS, Stefanick M, Manson JE, Deal JA, Rapp SR, Lin FR, Resnick SM. Associations of hearing loss and menopausal hormone therapy with change in global cognition and incident cognitive impairment among postmenopausal women. J Gerontol A Biol Sci Med Sci. 2020; 75(3):537-544.

24. Casaletto KB, Arce Renteria M, Pa J, Tom S, Harrati A, Armstrong NM, Rajan KB, Mungas D, Walters S, Kramer J, Zahodne L. Physical versus cognitive activity: brain maintenance or cognitive reserve. J Alzheimers Dis. 2020; 74(1):363-376.

25. Fremont R, Manoocheri M, Armstrong NM, Mattay VS, Apud JA, Tierney MC, Devanand DP, Gazes Y, Habeck C, Wassermann E, Grafman J, Huey ED. Tolcapone treatment for cognitive and behavioral symptoms in behavioral variant frontotemporal dementia: a placebo-controlled crossover study. J Alzheimers Dis. 2020; 75(4):1391-1403.

26. Williams OA, An Y, Armstrong NM, Kitner-Triolo M, Ferrucci L, Resnick SM. Profiles of cognitive change in preclinical Alzheimer's disease using change-point analysis. J Alzheimers Dis. 2020; 75(4):1169-1180.

27. Gao J, Armstrong NM, Deal JA, Lin FR, He P. Hearing loss and cognitive function among Chinese older adults: the role of participation of leisure activities. BMC Geriatr. 2020; 20:215.

28. Tran E, Stefanick M, Henderson VW, Rapp S, Chen JC, Armstrong NM, Espeland MA, Gower EW, Shadyab AH, Li W, Stone KL, Pershing S. Association of visual impairment with risk of incident dementia: The Women's Health Initiative. JAMA Ophthalmol. 2020;138(6):1-10.

29. Armstrong NM, Dumitrescu L, Huang CW, An Y, Doshi Y, Erus G, Davatzikos C, Ferrucci L, Resnick SM, Hohman T. Association of hippocampal volume polygenic predictor score with baseline and change in brain volumes and cognition among cognitively health older adults. Neurobiol Aging. 2020;94:81-88.30. Armstrong NM, Oosterloo BC, Croll PH, Ikram MA, Goedegebure A. Discrimination of degrees of auditory performance from the digits-in-noise test based on hearing status. Int J Audiol. 2020;59(12):897-904.

31. Armstrong NM, Croll PH, Oosterloo BC, Lin FR, Ikram MA, Goedegebure A, Vernooij MW. Association of speech recognition thresholds with brain volumes and white matter microstructure: The Rotterdam Study. Otol Neurotol. 2020;41(9):1202-1209.

32. Armstrong NM, Williams OA, Landman B, Deal JA, Lin FR, Resnick SM. Association of Poorer Hearing with Change in White Matter Microstructure. JAMA Otolaryngol Head Neck Surg. 2020;146(11):1035-1042.

33. Armstrong NM, An Y, Shin JJ, Williams OA, Doshi J, Erus G, Davatzikos C,
Ferrucci L, Beason-Held L, Resnick SM. Associations between cognitive and brain volume changes in cognitively normal older adults. Neuroimage. 2020;223:117289.
34. Croll PH, Vinke EJ, Armstrong NM, Licher S, Vernooij MW, Baatenberg de Jong RJ, Goedegebure A, Ikram MA. Hearing loss and cognitive decline in the general population: a prospective cohort study. J Neurol. 2021;268(3):860-871.

35. Shukla A, Reed N, Armstrong NM, Lin FR, Deal JA, Goman AM. Hearing loss, hearing aid use and depressive symptoms in older adults – findings from the Atherosclerosis Risk in Communities Neurocognitive Study (ARIC-NCS). J Gerontol B Psychol Sci Soc Sci. 2021;76(3):518-523.

36. Nichols E, Deal JA, Swenor BK, Abraham AG, Armstrong NM, Carlson MC, Griswold M, Lin FR, Mosley T, Ramulu P, Reed NS, Resnick SM, Sharrett AR, Gross

AL. Assessing bias in cognitive testing for older adults with sensory impairment: an analysis of differential item functioning in the Baltimore Longitudinal Study on Aging (BLSA) and the Atherosclerosis Risk in Communities Neurocognitive Study (ARIC-NCS). J Int Neuropsychol; in press.

37. Armstrong NM, Tom S, Harrati A, Casaletto K, Pa J, Renteria MA, Gu Y, Rajan KB, Schupf N, Weuve J, Simonsick E, Manly J, Fieo R, Stern Y, Zahodne L. Longitudinal relationship of leisure activity engagement with cognitive performance among community-dwelling older adults. Gerontologist; in press.

38. Brown JC, Yuan S, DeVries WH, Armstrong NM, Korte JE, Sahlem GL, Carpenter LL, George MS. NMDA-receptor agonist reveals LTP-like properties of 10-Hz rTMS in the human motor cortex. Brain Stimul; in press.

39. Cooper CP, Shafer AT\*, Armstrong NM\*, Rossi SL, Young J, Herold C, Yang Y, Stein EA, Resnick SM, Rapp PR. Recognition memory is associated with different patterns of regional gray matter volumes in young and aged monkeys. Cereb; in press. 40. Irace AL, Armstrong NM, Deal JA, Chern A, Ferrucci L, Lin FR, Resnick SM, Golub JS. A cross-sectional and longitudinal analysis of subclinical hearing loss and cognition. J Gerontol A Biol Sci Med Sci; in press.

41. Armstrong NM, Wang H, E J-Y, Lin FR, Abraham AG, Ramulu P, Resnick SM, Tian Q, Simonsick E, Gross AL, Schrack J, Ferrucci L, & Agrawal Y. Patterns of prevalence of multiple sensory impairments among community-dwelling older adults. J Gerontol A Biol Sci Med Sci; in press.

#### PUBLICATIONS SUBMITTED OR IN PREPARATION

1. Armstrong NM\*, Shafer AT\*, Beason-Held L, Wong D, Ferrucci L, Lin FR, Resnick SM. Association of hearing loss with baseline and change in resting cerebral blood flow in cognitively normal older adults. Submitted to J Neurosci.

2. Powell DS, Brenowitz WD, Yaffe K, Armstrong NM, Reed NS, Lin FR, Gross AL, Deal JA. Examining the combined estimated effects of hearing loss and depressive symptoms on risk of cognitive decline and incident dementia. Under Review. J Gerontol B Psychol Sci Soc Sci.

3. Pa J, Aslanyan V, Casaletto KB, Rentería MA, Harrati A, Tom SE, Armstrong NM, Rajan KB, Avila-Rieger J, Gu Y, Schupf N, Manly JJ, Brickman AM, Zahodne LB. Sex and APOE4 interactions modify the associations between lifestyle activities and cognitive reserve. Under Review. Neurology.

4. Nichols E, Deal JA, Swenor BK, Abraham AG, Armstrong NM, Carlson MC, Griswold M, Lin FR, Mosley T, Ramulu P, Reed NS, Resnick SM, Sharrett AR, Gross AL. The effect of missing data and imputation on the detection of bias in cognitive testing: an illustration using real-world data. Submitted to Am J Epidemiol.

5. Rentería MA, Casaletto KB, Tom SE, Pa J, Harrati A, Armstrong NM, Rajan KB, Fletcher E, Vonk J, Brickman AM, Manly JJ, Mungas D, Zahodne LB. Active bilingualism, medial temporal lobe integrity, and cognitive reserve among older Latinx adults. Manuscript in preparation.

6. Pupo DA, Small BJ, Deal JA, Armstrong NM, Simonsick EM, Resnick SM, Lin FR, Ferrucci L, Tian Q. Cognition modifies the relationship between hearing and mobility in cognitively normal older adults. Manuscript in preparation.

7. Cooper CP, Armstrong NM, Shafer AT, An Y, Huang CW, Doshi, J, Erus G, Davatzikos C, Ferrucci L, Rapp PR, Resnick SM. Association of cerebellum volumes with verbal learning and memory in the Baltimore Longitudinal Study of Aging. Manuscript in preparation. \*equal contribution

#### ABSTRACTS

1. Armstrong NM, Parisi JM, Gitlin LN, Carlson MC, Rebok GW, Gross AL. Harmonization of a common summary measure of physical functioning across 8 datasets. Poster presentation at the 67th Annual Gerontological Society of America Scientific Meeting, Washington, D.C. (November 2014), the 2015 Delta Omega Scientific Poster Competition, Baltimore, MD (February 2015), and the 8th Annual Elizabeth L. Rogers Research in Aging Showcase, Baltimore, MD (May 2015).

2. Armstrong NM, Meoni LA, Gallo JJ, Gross AL. Vascular risk factors associated with time to incident depression: The Johns Hopkins Precursors Study. Poster presentation at the 67th Annual Gerontological Society of America Scientific Meeting, Washington, D.C. 2014.

3. Armstrong NM, Gross AL, Varma VR, Tian J, Carlson MC. Model-estimated intercept during the color condition of Stroop test predicts onset of dementia. Poster presentation at the Department of Epidemiology Centennial Poster Competition, Baltimore MD (October 2015) and 68th Annual Gerontological Society of America Scientific Meeting, Orlando, FL (November 2015).

4. Armstrong NM, Carlson MC, Xue Q, Carnethon MR, Rosano C, Chaves PHM, Bandeen-Roche K, Gross AL. (April 2016). Mediation of the association of cardiovascular risk factors with cognitive change by depressive symptoms: Cardiovascular Health Study. Poster presentation at the 2016 Cognitive Aging Conference, Atlanta, GA.

5. Armstrong NM, Carlson MC, Xue Q, Carnethon MR, Rosano C, Chaves PHM, Bandeen-Roche K, Gross AL. (July 2016). Depressive symptoms as potential mediators of the associations of vascular burden and subclinical cardiovascular disease with cognitive decline: Cardiovascular Health Study. Poster presentation at the Alzheimer's Association International Conference (AAIC 2016), Toronto, Canada.

6. Armstrong NM, Surkan PJ, Gross AL, Treisman GJ, Sacktor NC, Irwin M, Wolinsky S, Stall R, Jacobson LP, Abraham AG. Differences in the association between depressive phenotype and cognitive trajectories by HIV status. Poster presentation at the 7th International Workshop on HIV & Aging, Washington, D.C. (October 2016) and the 2017 Delta Omega Scientific Poster Competition, Baltimore, MD (March 2017).

7. Armstrong NM, Gross AL, Andrews R, Varma VR, Xue Q, Carlson MC. (November 2016). Association between trial-level change in Stroop test and mobility: Baltimore Experience Corps Trial. Poster presentation at the 69th Annual Gerontological Society of America Scientific Meeting, New Orleans, LA.

8. Armstrong NM, Carlson MC, Xue Q, Carnethon MR, Rosano C, Chaves PHM, Gross AL. (July 2017). Depressive symptoms as potential mediators of the associations of subclinical cardiovascular disease with onset of mild cognitive impairment and dementia:

Cardiovascular Health Study. Poster presentation at the Alzheimer's Association International Conference (2017 AAIC), London, UK.

9. Armstrong NM, Deal JA, Kritchevsky S, Pratt S, Harris T, Barry LC, Simonsick EM, Lin FR. (March and April 2018). Differences in the association of depression and disability by hearing ability in older adults. Poster presentation at the Annual Scientific and Technology Conference of the American Auditory Society, Scottsdale, AZ and 11th Annual Elizabeth L. Rogers Research on Aging Showcase, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD.

10. Armstrong NM, An Y, Doshi J, Erus G, Ferrucci L, Davatzikos C, Deal JA, Lin FR Resnick SM. (May and July 2018). Right Ear Advantage: Association of laterality of peripheral hearing loss with temporal lobe neurodegeneration. Poster presentation at the Annual National Institute on Aging Retreat, Baltimore, MD, 2018 AAIC, Chicago, IL, and 2018 National Institutes of Health Research Festival.

11. Armstrong NM, Espeland MA, Chen JC, Masaki K, Wactawski-Wande J, Li W, Gass MLS, Stefanick M, Manson JE, Deal JA, Rapp SR, Lin FR, Resnick SM. (May 2019). Associations of self-reported hearing loss with change in global cognition and incident cognitive impairment among postmenopausal women. Poster presentation at the 2019 Women's Health Initiative Annual Investigator Meeting, Bethesda, MD, 2019.

12. Armstrong NM, Dumitrescu L, Huang CW, An Y, Doshi J, Erus G, Davatzikos C, Ferrucci L, Hohman T, Resnick SM. Association of hippocampal volume polygenic predictor score with change in cognition and brain volumes among cognitively healthy older adults. (July 2019). 2019 AAIC. Los Angeles, CA.

13. Armstrong NM, Tom S, Harrati A, Casaletto K, Pa J, Renteria MA, Gu Y, Schupf N, Weuve J, Simonsick E, Manly J, Stern Y, Zahodne L. Dynamic, bidirectional longitudinal relationship between leisure activity engagement and cognitive performance. (November 2019). Poster presentation at the 71st Annual Gerontological Society of America Scientific Meeting, Austin, TX.

# **CONFERENCE PRESENTATIONS**

1. Longitudinal Association between Depressive Phenotype and Cognitive Impairment in Men with and without HIV. 6<sup>th</sup> International Workshop on HIV & Aging, Washington, DC. 2015.

2. Predictors of Neurodegeneration in Cognitively Healthy and Subsequently Cognitively Impaired Older Adults. Cognitive Aging Conference, Atlanta, GA. 2018.

3. Apolipoprotein E4 Genotype and Longitudinal Changes in Brain Structure in Subsequently Impaired and Cognitively Healthy Older Adults. 2018 Alzheimer's Association International Conference (AAIC), Chicago, IL. 2018.

4. Comparison of Associations of Metrics of Auditory Function with Incident Dementia. Adult Changes in Thought Symposium, Seattle, WA. 2018.

5. Comparison of Metrics for the Identification of Long-Term Depression in Absence of Gold Standard. The Gerontological Society of America's 70th Annual Scientific Meeting, Boston, MA. 2018.

5. Standardized Physical Functioning Metric through Item Response Theory across Intervention Studies of Middle-Aged and Older Adults. The Gerontological Society of America's 70th Annual Scientific Meeting, Boston, MA. 2018.

6. Differential Association of Hormone Therapy with Change in Global Cognition and Incident Dementia by Hearing Status. The Gerontological Society of America's 70th Annual Scientific Meeting, Boston, MA. 2018.

7. Association of Amyloid Positivity with Volume Loss in Temporal Lobes Differs between Men and Women in Cognitively Normal Older Adults. Tohoku University Meeting for Young Scientists in Future Medicine, Sendai, Japan. 2019.

8. Change in Cognition Is Correlated with Change in Brain Volumes in Cognitively Normal Older Adults. 2019 AAIC. Los Angeles, CA. 2019.

9. Patterns of Prevalence of Multiple Sensory Deficits in Older Adults. The Gerontological Society of America's 72nd Annual Scientific Meeting, Online. 2020.10. Causal Mediation Analysis of the Timing of Risk Factors for Incident Cognitive Impairment. Joint Statistical Conference. Online. 2021.

11. Sensory Impairment and Beta-Amyloid Deposition in the Baltimore Longitudinal Study of Aging. The Gerontological Society of America's 73rd Annual Scientific Meeting, Phoenix, AZ. 2021

# **INVITED PRESENTATIONS**

#### LOCAL

1. Epidemiology of Depression in Older Adults / Epidemiology of Aging, Johns Hopkins Bloomberg School of Public Health (2016)

2. Differential Associations of Predictors of Neurodegeneration by Cognitive Status in Older Adults / Baltimore Brain Series, Johns Hopkins University School of Medicine (2018)

3. Shared Contributors to Cognitive and Physical Aging / Tenure-Track Investigator Candidate Seminar, Longitudinal Studies Section, Translational Gerontology Branch, National Institute on Aging Intramural Research Program (2019)

4. Changes in Cognition and Brain Volumes in Cognitively Normal Older Adults / Johns Hopkins University School of Medicine Dementia Consortium (2019)

5. Hearing Loss as a Shared Contributor to Dementia and Disability / Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health (2019)

6. Power Analysis for fMRI Studies / Center of Biomedical Research Excellence on Neuromodulation, Butler Hospital (2021)

# NATIONAL

1. Contributions of Modifiable Risk Factors to Cognitive Impairment. Aging Brain Center Monthly Seminar Series, Institute for Aging Research, Boston, MA. 2019.

# **INTERNATIONAL**

1. Associations of Optimal Ranges of Speech Recognition Thresholds by Hearing Status, Age, and Sex with Cognitive Trajectories: Rotterdam Study. Department of Epidemiology, Erasmus University Medical Center, Rotterdam, The Netherlands. 2019.

2. Who Is Listening: Hearing Impairment as a Risk Factor for Dementia and Disability / Otic Hearing and Speech Centre, Hong Kong. 2021.

# <u>GRANTS</u>

# Current

2019-2024	Contribution of Sensorimotor Function to Risk and Pathogenic Mechanisms of
	Alzheimer's disease and Related Dementias (Schrack, JA, Agrawal, Y, & Lin, FR)
	R01AG061786
	Consultant
	The goal of this study is to evaluate whether sensory and motor functioning may be early markers of the onset and progression of AD pathology, which in turn may be targets in
	future interventions to prevent or slow AD progression.
2021-2024	Improving Retention in Care for Persons with HIV Who Use Substances by
	Increasing Acceptance and Reducing Stigma (Moitra E & Pinkston MM)
	R34DA053738-01
	Co-Investigator
	The goal of this study is to adapt and refine an acceptance-based behavioral therapy intervention to enhance retention in HIV care for people who use substances by targeting stigma.
2021-2025	Low Intensity Focused Ultrasound: A New Paradigm for Depression and Anxiety
	(Philip NS)
	U01MH123427-01A1
	DSMB Statistician
	The goal of this study will be to perform the first-in-human studies for the development of low intensity focused ultrasound as a future treatment for depression and anxiety.

# PEER REVIEWER FOR MEDICAL JOURNALS

International Journal of Geriatric Psychiatry Journal of the American Geriatric Society Journal of Alzheimer's Disease International Psychogeriatrics Aging, Neuropsychology and Cognition PLoS One Journal of Aging and Physical Activity American Journal of Geriatric Psychiatry AIDS and Behavior Journal of Aging and Mental Health Medical Care JAMA Otolaryngology-Head & Neck Surgery Journal of the American College of Cardiology Journals of Gerontology, Series B: Psychological Sciences and Social Sciences Otology & Neurotology Journal of International Neuropsychological Society Ear and Hearing Alzheimer's & Dementia