# CURRICULUM VITAE LOUISA THOMPSON

Licensed Clinical Neuropsychologist

Assistant Professor (Research), Department of Psychiatry & Human Behavior

Warren Alpert Medical School of Brown University

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### **EDUCATION**

Undergraduate Oberlin College, BA (Hons), Majors: Psychology and

Neuroscience, 2008

Doctoral City University of New York Graduate Center, Clinical

Psychology (Neuropsychology emphasis), Ph.D., 2017

#### POSTGRADUATE TRAINING

Residency University of California San Diego, Clinical

Psychology, 2016-2017

Fellowship Postdoctoral Fellow, Alpert Medical School of

Brown University, 2017-2019

### HONORS AND AWARDS

Loan Repayment Program Award, NIH/NIA, 2021-

present

IMPACT-AD Fellowship Track Program, Alzheimer's Association & NIH/NIA, 2020

University Fellowship, CUNY Graduate Center, 2015

Travel & Conference Award, CUNY Graduate Center,

2012, 2014

Graduate Teaching Assistantship Award, Hunter

College, 2013-2014

Graduate Research Assistantship Award, CUNY

Graduate Center, 2010-2011

## PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Licensed Psychologist, Rhode Island, April, 2019 -

present

**HOSPITAL APPOINTMENTS** 

Allied Professional Staff Clinical Psychologist,

Butler Hospital, 2019 - present

Research Scientist, Memory & Aging Program,

Butler Hospital, 2019-2023

Associate Director of Research, Memory & Aging Program, Butler Hospital, 2023 - present

**ACADEMIC APPOINTMENTS** 

Instructor, Department of Psychiatry and

Human Behavior, Alpert Medical School of

Brown University, 2019-2020

Assistant Professor, Department of Psychiatry

and Human Behavior, Alpert Medical School

of Brown University, 2020-Present

MEMBERSHIP IN SOCIETIES, COMMITTEES, AND CONSORTIA

Society memberships: Alzheimer's Association ISTAART

International Neuropsychological Society

National Committees:

Member, NIH/NIA Genetic and Biomarker

Disclosure Working Group 2019 – 2022

AGCD-3 Study Section Committee, Ad hoc reviewer

National Institute on Aging, 2023-2024

AGCD-3 Study Section Committee, Member

National Institute on Aging, 2024-

*Member*, National Alzheimer's Coordinating Center: CTF Tech Workgroup, In-Clinic UDS

Digital Instruments Subgroup, 2024 -

International Committees: Program committee member, International

Neuropsychological Society, 2019, 2020, 2021,

2022 Meetings

*Member*, Dementia Special Interest Group, International Neuropsychological Society, 2020 -

Member, Technology Working Group, Cognition Professional Interest Area, Alzheimer's Association ISTAART, 2021-2022

Reviewer, Alzheimer's Association Grant Reviewer Committee, 2021, 2022, 2023

*Member*, Alzheimer's Association International Research Grant Program Council, 2024-

Co-Lead, Global CEO Initiative on Alzheimer's Disease, Digital Cognitive Assessments (DCA) Workgroup, 2024-

#### **PUBLICATIONS LIST**

#### ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- 1. Darling, N., Cohan, C., Burns, A., & **Thompson, L.** (2008). Within-family conflict behaviors as predictors of conflict and relationship satisfaction in adolescent romantic relations. *Journal of Adolescence*, 31(6), 671-690.
- 2. Milner, T.A., **Thompson, L.**, Wang, G., et al. (2010). Distribution of estrogen receptor beta containing cells in the brains of bacterial artificial chromosome transgenic mice. *Brain Research*, 1351, 74-96.
- 3. Williams, T.J., Mitterling, K.L., **Thompson, L.**, et al. (2011). Age- and hormone-regulation of opioid peptides and synaptic proteins in the rat dorsal hippocampal formation. *Brain Research*, *1379*, 71-85.
- 4. Golub, S., Starks, T., Kowalczyk, W., **Thompson, L.**, Parsons, J. (2012) Profiles of executive functioning: associations with substance dependence and risky sexual behavior. *Psychology of Addictive Behaviors*, 26(4), 895-905.
- 5. Akama, K.T, **Thompson, L.**, Milner, T.A., McEwen, B.S. (2013). PSD-95 binding capacity of GPR30, an estrogen receptor that can be identified in CA1 dendritic spines in vivo. *Journal of Biological Chemistry*, 288(9), 6438-6450.
- 6. Waters, E., **Thompson, L.,** Patel, P., . . . et al., (2015). G protein-coupled estrogen receptor 1 (GPER1) is anatomically positioned to modulate synaptic plasticity in the mouse hippocampus. *Journal of Neuroscience*, 35(6), 2384-2397.
- 7. Golub, S.A., **Thompson**, L., Kowalczyk, W. (2016). Affective differences in Iowa Gambling Task performance associated with sexual risk taking and substance use among men who have sex with men. *Journal of Clinical and Experimental*

- Neuropsychology, 38(2), 141-157.
- 8. Cheng, D., **Thompson, L.,** & Snyder, P. J. (2019). A Potential Association Between Retinal Changes, Subjective Memory Impairment, and Anxiety in Older Adults at Risk for Alzheimer's Disease: A 27-month Pilot Study. *Frontiers in Aging Neuroscience*, 11, 288.
- 9. Alber, J., Goldfarb, D., **Thompson, L.**, Arthur, E., ... & Van Stavern, G. P. (2020). Developing retinal biomarkers for the earliest stages of Alzheimer's disease: What we know, what we don't, and how to move forward. *Alzheimer's & Dementia*, 16(1), 229-243.
- 10. Alber, J., Maruff, P., Santos, C. Y., Ott, B. R., Salloway, S. P., Yoo, D. C., Alber, J., **Thompson, L.,** Cabral, D., Song, A. (2020). Disruption of cholinergic neurotransmission, within a cognitive challenge paradigm, is indicative of Aβ-related cognitive impairment in preclinical Alzheimer's disease after a 27-month delay interval. *Alzheimer's Research & Therapy*, *12*(1), 1-9.
- 11. **Thompson, L.** & Jones, R. (2020). Depression screening in cognitively normal older adults: Measurement bias according to subjective memory decline, brain amyloid burden, cognitive function, and sex. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 12(1), e12107.
- 12. Alber J, Popescu D, **Thompson L.**, . . . & Lee, AK. (2021). Safety and Tolerability of APOE Genotyping and Disclosure in Cognitively Normal Volunteers from the Butler Alzheimer's Prevention Registry. *Journal of Geriatric Psychiatry and Neurology*. 891988721993575.
- 13. Arthur E, Alber J, **Thompson L**., Sinoff S, Snyder PJ. (2021). OCTA reveals remodeling of the peripheral capillary free zones in normal aging. *Nature Scientific Reports*. 2;11(1):15593. doi: 10.1038/s41598-021-95230-0.
- 14. Janssen, O., Jansen, W. J., Vos, S. J. B., Boada, M., Parnetti, L., ... **Thompson, L.,** ... Visser, P. J. (2021). Characteristics of subjective cognitive decline associated with amyloid positivity. *Alzheimer's & Dementia*.
- 15. Jansen, W. J., Janssen, O., Tijms, B. M., Vos, S. J., Ossenkoppele, R., Visser, P. J., ... **Thompson, L.,** ... & Scheltens, P. (2022). Prevalence estimates of amyloid abnormality across the Alzheimer disease clinical spectrum. *JAMA neurology*, 79(3), 228-243.
- 16. **Thompson, L,** Harrington, K., Roque, N., Strenger, J., Correia, S., Jones, R. N., ... & Sliwinski, M. J. (2022). A highly feasible, reliable, and fully remote protocol for mobile app-based cognitive assessment in cognitively healthy older adults. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 14(1), e12283.
- 17. **Thompson, L.\***, Jutten, R.\*, Sikkes, S., Maruff, P., Molinuevo, J.L., . . . & Snyder, P. (2022). A Neuropsychological Perspective on Defining Cognitive Impairment in the Clinical Study of Alzheimer's Disease: Towards a More Continuous Approach. *Journal of Alzheimer's Disease*, 1-14. \*Co-first authors

- 18. Matusz, E., Lamar. M., Price, C., . . . **Thompson, L.** (2022). Dissociating Statistically Determined Normal Cognitive Abilities and Mild Cognitive Impairment Subtypes with DCTclock. *Journal of the International Neuropsychological Society*, 1-11.
- 19. Cersonsky, T., Mechery, S., Carper, M. M., **Thompson, L.**, Lee, A., Alber, J., ... & Brick, L.. (2022). Using the Montreal cognitive assessment to identify individuals with subtle cognitive decline. *Neuropsychology*, *36*(5), 373.
- 20. Cersonsky, T. E., Mechery, S., **Thompson, L.**, Lee, A., Alber, J., Sarkar, I. N., & Brick, L. A. D. (2022). Related amyloid burden and cortical atrophy in individuals with subtle cognitive decline. *Journal of Neuroimaging*, 32(6), 1075-1079.
- 21. Lee, A. K., Collier, M. K., **Thompson, L.,** Popescu, D., Arthur, E., Correia, S., ... & Alber, J. (2023). The Effects of Subjective Cognitive Decline on APOE Genotype Disclosure in the Butler Hospital Alzheimer's Prevention Registry. *The Journal of Prevention of Alzheimer's Disease*, 10(2), 152-161.
- 22. **Thompson, L.\*,** Cummings, M.\*, Emrani, S., Libon, D. J., Ang, A., Karjadi, C., ... & Liu, C. (2023). Digital Clock Drawing as an Alzheimer's Disease Susceptibility Biomarker: Associations with Genetic Risk Score and APOE in Older Adults. *The Journal of Prevention of Alzheimer's Disease*, 1-9. \*Co-first authors
- 23. Georgakas, J. E., Howe, M. D., **Thompson, L.**, Riera, N. M., & Riddle, M. C. (2023). Biomarkers of Alzheimer's Disease: Past, Present and Future Clinical Use. *Biomarkers in Neuropsychiatry*, 100063.
- 24. Britton, G.B., Huang, L., Villarreal, A.E., Levey, A., Philippakis, A., Hu, C., Yang, C.C., Mushi, D., Oviedo, D.C., Rangel, G., Ho, J.S., **Thompson, L.**, Khemakhem, M., Ross, M., Carreira, M.B., Kim, N., Joung, P., Albastaki, O., Kuo, P.C., Low, S., Paddick, S., Kuan, Y., Au, R., (2023). Digital phenotyping: An equal opportunity approach to reducing disparities in Alzheimer's disease and related dementia research. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease* Monitoring 15.. https://doi.org/10.1002/dad2.12495
- 25. **Thompson**, L., Kunicki, Z., Emrani, S., Strenger, J., De Vito, A., Britton, K., Dion, C., Harrington, K., Roque, N., Salloway, S., Sliwinski, M., Correia, S., Jones, R., (2023). Remote and in-clinic digital cognitive screening tools outperform the MoCA to distinguish cerebral amyloid status among cognitively healthy older adults. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring* 15.
- 26. Popescu, D. L., Lee, A. K., Arthur, E., **Thompson, L.**, & Alber, J. (2024). APOE Genotype Disclosure Influences Decisions About Future Planning but not Adoption of Healthy Lifestyle Changes in Cognitively Unimpaired Individuals. *Journal of Geriatric Psychiatry and Neurology*, 08919887241237224.
- 27. **Thompson,** L., De Vito, A. N., Kunicki, Z., Emrani, S., Strenger, J., Nester, C. O., Harrington, K. D., Roque, N., Manoocheri, M., Salloway, S., Correia, S., Jones, R. N., & Sliwinski, M. J. (2024). The feasibility and psychometric rigor of using high-

- frequency, smartphone-based assessments for cognitive screening in older adults. *Journal of the International Neuropsychological Society*. Published online 2024:1-9. doi:10.1017/S1355617724000328
- 28. Nester, C., De Vito, A., Prieto, S., Kunicki, Z., Strenger, J., Harrington, K., Roque, N., Sliwinski, M., & **Thompson. L.** (<u>in press</u>). The Association Between Subjective Cognitive Concerns and Mobile App Based Cognitive Assessment in Older Adults: Protocol Adherence, Satisfaction, and Objective Cognitive Performance. *JIMR Aging*.

### PUBLICATIONS SUBMITTED OR IN PREPARATION

- 1. Libon, D, Swenson, R., Langford, D, Cosentino, S., Price, C., Lamar, M., Emrani, S., Au, S., Andersen, S., Chan, M., Ashendorf, L., & **Thompson, L.** (in review). Cognition: An Emerging Diagnostic Paradigm Leveraging Digital Cognitive Assessment Technology. *Journal of Alzheimer's Disease*.
- 2. Lee, A.K., De Vito, A., Mandel, N., Popescu, D., Alber, J., Correia, S., Salloway, S., & **Thompson, L.** (<u>in preparation</u>). Dual Disclosure of APOE-4 Genotyping and Amyloid Status for Risk of Alzheimer's Disease to Cognitively Normal Research Participants: A Mixed-Methods Study.
- 3. **Thompson, L.,** Rosenbaum, J., Czech, S., Anthony, D., Prieto, S., Lawrence, M., Chandran, R., Goldberg, A., Gillooly, C., Vyshedskiy, A., Elwy, A., Jones, R., Rentz, D., & Eaton, C. (in preparation). A pilot comparison of remote versus in-clinic digital cognitive screening feasibility, acceptability, validity. *Alzheimer's & Dementia*.

### CONFERENCE ABSTRACTS/PRESENTATIONS

- 1. Akama, K.T., **Thompson, L.**, Milner, T.A., McEwen, B. PSD-95 binding capacity of GPR30, an estrogen receptor that can be identified in CA1 dendritic spines in vivo. The *American Society for Cell Biology* Annual Meeting, December, 2011.
- 2. **Thompson, L.**, Kowalczyk, W., Golub, S. Affective differences in reward perception associated with sexual risk taking. *Center for the Study of Gene Structure and Function, 25<sup>th</sup> Annual Symposium: The Stressed Brain in the 21<sup>st</sup> Century, Hunter College, 2012*
- 3. **Thompson, L.**, Kowalczyk, W. Anxiety and depression interact with Iowa Gambling Task performance to predict substance use and sexual risk-taking behaviors. *Annual Neuropsychology Research Day*, Queens College, September, 2012.
- 4. **Thompson, L.**, Kowalczyk, W., Golub, S. Affective differences in Iowa Gambling Task performance associated with sexual risk taking. *National Academy of Neuropsychology* 32<sup>nd</sup> Annual Conference, November, 2012.
- Thompson, L., Wells, B., Parsons, J., Golub, S. Emotional distress and affective decision-making processes involved in sex under the influence of alcohol among emerging adults.
   Mid-Year Meeting of the *International Neuropsychological Society*, Amsterdam, Netherlands, July, 2013.
- 6. **Thompson, L.**, Wells, B., Parsons, J., Golub, S. Profiles of executive function in the prediction of alcohol use among emerging adults in NYC. Annual Meeting of the *International Neuropsychological Society*, Denver, Colorado, February, 2015.
- 7. **Thompson**, L., Surace, A., & Golub, S.A. Cards, Balloons, or Dice? A comparison of risky decision-making tasks and their associations with working memory, anxiety,

- depression, and risk taking. Annual Meeting of the *International Neuropsychological Society*, New Orleans, Louisiana, February, 2017.
- 8. Goldfarb, D., Snyder, P., Maruff, P., Santos, C., Ott, B., Salloway, S., Yoo, D., Noto, R. & Alber, J., **Thompson, L.** & Song, A. (2018). Disruption of cholinergic neurotransmission, within a cognitive challenge paradigm, predicts Aβ-related cognitive impairment in preclinical Alzheimer's disease after a 27-month delay interval. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), P322-P323.
- 9. Alber, J., Collier, M., Goldfarb, D., **Thompson, L.,** Dawson, B., Salloway, S., & Lee, A. (2018). Safety, tolerability, and lifestyle changes associated with APOE disclosure in the Butler Alzheimer's Prevention Registry: Implications for recruitment to clinical trials. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association, 14*(7), P989-P990.
- 10. Cheng, D., Santos, C., **Thompson, L.,** Hernandez, K., & Snyder, P. (2018). Retinal nerve fiber layer thinning and subjective memory impairment changes in preclinical Alzheimer's disease patients. *Alzheimer's & Dementia: Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), P1204.
- 11. Lee, A.K., **Thompson, L.**, Collier, M., Goldfarb, D., Salloway, S., & Alber, J. (2018). The effects of subjective cognitive decline on APOE genotype disclosure in the Butler Alzheimer's Prevention Registry. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), P1071.
- 12. **Thompson, L.**, Alber, J., Hernandez, K., & Snyder, P. (2018) DCTclock™ versus manual 10-point scoring method in predicting amyloid burden and memory performance in healthy older adults with subjective cognitive complaints. Poster presented at AAIC Chicago, IL, 2018. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), P535.
- 13. Lee, A., Menard, W., Tonini, G., **Thompson, L.,** Alber, J., Salloway, S. (2018). Reliability of a rapid APOE assay for Alzheimer's risk assessment and clinical trial screening. *The Journal of Prevention of Alzheimer's Disease*, 5(S1), s182.
- 14. Goldfarb, D., Snyder, P., Maruff, P., Santos, C., Ott, B., Salloway, S., Yoo, D., Noto, R. & Alber, J., **Thompson**, L. & Song, A. (2018). Disruption of cholinergic neurotransmission, within a cognitive challenge paradigm, predicts Aβ-related cognitive impairment in preclinical Alzheimer's disease after a 27-month delay interval. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 14(7), P322-P323.
- 15. **Thompson, L.,** Lee, A.K., Williams, R., Salloway, S., & Alber, J. Subjective cognitive decline before and after APOE and Amyloid PET disclosure in cognitively normal older adults screening for Alzheimer's disease prevention trials (2019). Accepted abstract to be presented at the *Alzheimer's Association International Conference*, July, 2019.
- 16. **Thompson, L.,** Arthur, E., Tonini, G., Salloway, S., & Lee A.K. (2020). Comparing the accuracy of the DCTclock and Montreal Cognitive Assessment to detect elevated cerebral amyloid in cognitively normal adults at increased genetic risk for Alzheimer's disease. *Accepted Abstract for the 2020 Cognitive Aging Conference*.
- 17. Lee, A.K.W., Mandel, N., Popescu, D., Williams, R., Alber, J., **Thompson, L.** (2020). Dual disclosure of APOE genotyping and amyloid PET results to cognitively normal older adults: A qualitative analysis. *Alzheimer's & Dementia* 16. doi:10.1002/alz.046018
- 18. **Thompson, L.** & Jones, R., (2020). Measurement bias in depression assessment according to brain amyloid burden, cognitive function, and sex in the A4 study. *Alzheimer's* & *Dementia* 16. doi:10.1002/alz.043613
- 19. Aker, R., Arthur, E., **Thompson, L.**, Maruff, P., Snyder, P., Alber, J., 2020. Development of the Snellen Memory Test (SMT): An episodic memory test to screen for AD risk in a clinical optometry/ophthalmology setting. *Alzheimer's & Dementia*

- 16.doi:10.1002/alz.045307
- 20. Alber, J., Arthur, E., **Thompson, L.I.,** Goldfarb, D., Fernandez, B.M., Salloway, S.P., Sinoff, S., Snyder, P.J., 2020. The Atlas of Retinal Imaging in Alzheimer's Study (ARIAS): Study design and objectives. *Alzheimer's & Dementia* 16. doi:10.1002/alz.045325
- 21. Cersonsky, T., Mechery, S., Carper, M., **Thompson, L.,** Sarkar, I.N.; Brick, L. (2020). Using Montreal Cognitive Assessment for clinical decision support in identifying individuals with subtle cognitive decline. *13<sup>th</sup> Annual Warren Alpert Medical School Academic Symposium*. Brown University, November 18<sup>th</sup>, 2020.
- 22. Strenger, J., Alber, J., Arthur, E., Snyder, PJ., Sinoff, S., & **Thompson, L.** (2021). Validation of a 4-item subjective cognitive decline screening questionnaire in cognitively normal older adults. *2021 Alzheimer's Association International Conference*, virtual.
- 23. **Thompson,** L., Harrington, K., Roque, N., Strenger, J., ... Salloway, S. & Sliwinski, M. (2021). Use of app-based cognitive assessments during the COVID-19 pandemic: feasibility, acceptability, and reliability among cognitively normal older adults. Abstract presented at the *Clinical Trials on Alzheimer's Disease (CTAD) Annual Conference*, Boston, MA, November, 2021.
- 24. De Vito, A., Kunicki, Z. J., Britton, K., Correia, S., & **Thompson, L.** (2022). Intraindividual variability on digital cognitive assessments differs by amyloidosis status in cognitively normal older adults. *Presented virtually at the annual meeting of Mind-Brain Research Day at Brown University, Providence, RI.*
- 25. Harrington, K., Roque, N., Strenger, J., Correia, S. Salloway, S., Sliwinski, M., & **Thompson, L.,** Loneliness and subjective cognitive impairment in preclinical Alzheimer's disease and healthy aging. *2022 Alzheimer's Association International Conference, San Diego, CA.* 8/03/2022.
- 26. Au, R., Joung, P., Ho, J.S., Albastaki, O., **Thompson, L.**, Low, S., Philippakis, A., & Levey, A. (2022) Davos Alzheimer's Collaborative: Building a globally representative cohort through a technologically-enabled approach. *2022 Alzheimer's Association International Conference*, San Diego, CA. 8/03/2022.
- 27. Emrani, S., Strenger, J., Kunicki, Z., De Vito, A., Salloway, S. & **Thompson, L.,** Psychometric properties of DCTclock with commonly used neuropsychological tests and their combined ability to predict Beta-Amyloid Positron Emission Tomography Status. *2023 Annual Meeting of the International Neuropsychological Society,* San Diego, CA.
- 28. De Vito, A., Kunicki, Z., Britton, K., Villa, P., Strenger, J., Harrington, K., Roque, N., Sliwinski, M., & **Thompson, L.** Intraindividual Variability in Processing Speed on Digital Cognitive Assessments Differs by Amyloidosis Status in Cognitively Normal Older Adults. 2023 *Annual Meeting of the International Neuropsychological Society*, San Diego, CA.
- 29. Thompson, L., Strenger, J., Emrani, S., De Vito, A., Harrington, K., Roque, N., Salloway, S., Sliwinski. M., & Correia, S. Remote Smartphone-Based Assessment Predicts Standard Neuropsychological Test Performance and Cerebral Amyloid Status in Cognitively Normal Older Adults. 2023 Annual Meeting of the International Neuropsychological Society, San Diego, CA.
- 30. Strenger, J., Riera, N., Harrington, K., Roque, N., Salloway, S., Sliwinski, M., &, **Thompson, L.** Variability in Remote, Self-Administered Assessment Performance Associated with Self-Reported Memory Perceptions Among Older Adults. *2023 Annual Meeting of the International Neuropsychological Society, San Diego, CA.*
- 31. Dion, C., Kunicki, K., Emrani, S., Strenger, J., De Vito, A., Britton, K., Harrington, K.,

- Roque, N., Salloway, S., Sliwinski, M., Correia, S., Jones, R., & **Thompson, L.** Remote and in-clinic digital cognitive screening outperforms the MoCA to distinguish cerebral amyloid status among cognitively healthy older adults. *Alzheimer's Association International Conference, Amsterdam, Netherlands, 2023.* Technology & Dementia Preconference Flash Talk.
- 32. Strenger, J., Emrani, S., Kunicki, K., Harrington, K., Roque, N., Sliwinski, M., Salloway, S., Correia, S., & **Thompson, L.** Time of day cognitive performance differences in remote, self-administered assessments and its association with cerebral amyloidosis. *Alzheimer's Association International Conference, Amsterdam, Netherlands, 2023.*
- 33. De Vito, A., Kunicki, K., Emrani, S., Strenger, J., Harrington, K., Roque, N., Sliwinski, M., Salloway, S., Correia, S., & **Thompson, L.** Fatigue Interacts with Amyloid Status to Predict Daily Working Memory Performance in Preclinical Alzheimer's Disease. *Alzheimer's Association International Conference, Amsterdam, Netherlands, 2023.*
- 34. Snyder, P., Alber, J., Jeromin, A., Chaby, L., Portbury, S., **Thompson, L.,** Strenger, J., Price, A.. Direct Comparison of Four Blood Plasma-Based Biomarkers in Preclinical Alzheimer's Disease. *Alzheimer's Association International Conference, Amsterdam, Netherlands*, 2023.
- 35. **Thompson**, L., Cummings, M., Emrani, S., Libon, D. J., Ang, A., Karjadi, C., ... & Liu, C. Digital Clock Drawing as an Alzheimer's Disease Susceptibility Biomarker: Associations with Genetic Risk Score and APOE in Older Adults. *2023 Meeting of the Gerontological Society of America, Tampa, FL*.
- 36. Nester, C., De Vito, A., Kunicki, Z., Emrani, S., Strenger, J., Sliwinski, M., Harrington, K., Roque, N., Salloway, S., & **Thompson, L**. "How did I do?" Expectations About Feedback and Their Associations with Remote Cognitive Assessment in an Older Adult Sample. 2024 Annual Meeting of the International Neuropsychological Society, New York, NY.
- 37. Nester, C., De Vito, A., Prieto, S., Kunicki, Z., Strenger, J., Harrington, K., Roque, N., Sliwinski, M., & **Thompson.** L Subjective Cognitive Concerns and High Frequency Mobile App Based Cognitive Assessment in Older Adults: Relationship to Adherence, Satisfaction, and Cognitive Performance. *Alzheimer's Association International Conference, Philadelphia, PA, July 2024.*
- 38. De Vito, A., Joyce, H., Lawrence, M., **Thompson, L.**, Caffery, P., Bernstein, J. P., & Salloway, S. Strategy Use on Digital Cognitive Assessment Differs Between Individuals with and without Elevated Phosphorylated Tau 217 in Cognitively Normal Older Adults: Results from the BioFINDER-Brown Study. *Alzheimer's Association International Conference, Philadelphia, PA, July 2024.*
- 39. **Thompson, L.** Digital Assessment Approaches to Overcome Barriers to Cognitive Screening and Monitoring for Older Adults in Primary Care Settings. In Alzheimer's Association International Conference. *Alzheimer's Disease and Related Dementias* (ADRD) Clinical Trials Early Career Investigator Oral Abstracts Session. Alzheimer's Association International Conference, Philadelphia, PA, July 2024.
- 40. **Thompson**, L., Lawrence, M., Rosenbaum, J. A., Czech, S., Anthony, D. C., Chandran, R. F., ... & Eaton, C. B. (2024, July). Feasibility and Acceptability of Digital Cognitive Screening Approaches for Older Adults in Primary Care. *Alzheimer's Association International Conference*, *Philadelphia*, *PA*, *July* 2024.
- 41. Stradtman, M., De Vito, A. N., Price, A. N., Strenger, J., **Thompson, L.,** Sinoff, S., ... & Alber, J. Does the correlation between informant ratings of function and cognitive assessment scores differ based on informant gender? *Alzheimer's Association International Conference, Philadelphia, PA, July 2024.*

- 42. Sergio, J., Dubois, A., **Thompson, L.**, Strenger, J., Price, A. N., Stradtman, M., ... & Alber, J. The Relationship between Subjective Visual Impairment and Domain-Specific Cognitive Performance in Cognitively Normal Older Adults and MCI Patients. *Alzheimer's Association International Conference, Philadelphia, PA, July 2024.*
- 43. Joyce, H. E., De Vito, A. N., Caffery, P., Salloway, S., & **Thompson, L.** Examining domain-specific cognitive associations with p-tau217 in a cognitively normal sample: results from the BioFINDER-Brown Study. In Alzheimer's Association International Conference. ALZ. *Alzheimer's Association International Conference, Philadelphia, PA, July 2024*.
- 44. Price, A. N., Snyder, P. J., Strenger, J., **Thompson, L**., Stradtman, M., Sinoff, S., & Alber, J. Retinal AD Biomarkers in Cognitively Unimpaired Older Adults. *Alzheimer's Association International Conference, Philadelphia, PA, July 2024.*

### **INVITED PRESENTATIONS**

- 1. **Thompson**, L., Alber, J., & Lee, A. Aging and Memory Loss: What's normal, what's not, and how to make a difference. Cranston Senior Center, Cranston, RI, August, 2018.
- 2. **Thompson, L.**, Lee, A.K., Collier, M., . . . & Alber, J. APOE and amyloid PET disclosure at the Butler Memory and Aging Program. Symposium communication, *Clinical Trials on Alzheimer's Disease (CTAD) Annual Conference*, Barcelona, Spain, October, 2018.
- 3. **Thompson, L.** Cognitive and emotional assessment in preclinical Alzheimer's disease: implications for Alzheimer's prevention trials. *Alpert Medical School of Brown University Neuropsychology Rounds*, Providence, RI, March 2019.
- 4. **Thompson, L.** New directions in Alzheimer's risk assessment and clinical trials research. Bryant University, Smithfield, RI, October 2019.
- 5. **Thompson**, L. Aging & Memory Loss: What is normal, what is not and how to make a difference. Hamilton House Adult Learning Exchange, Providence, RI, February 2020.
- 6. **Thompson**, L. Feasibility of a Remote Mobile App-based Protocol for Cognitive Screening in Cognitively Normal Older Adults. *Brown University Center for Digital Health Seminar Series*. Providence, RI, March 17, 2021.
- 7. **Thompson, L.** Novel neuropsychological approaches for assessing cognitive decline in the early stages of the Alzheimer's disease continuum. *Symposium organized for the Annual meeting of the International Neuropsychological Society*, San Diego, Feb. 2-5<sup>th</sup>, 2021.
- 8. **Thompson,** L. Digital Cognitive Screening for Cognitively Healthy Older Adults: improving early detection of ADRD. *James J. Peters VA Medical Center, Clinical Psychology Residency Program Guest Lecture*, April 19, 2022.
- 9. **Thompson, L.** Developing novel cognitive assessment approaches for the early detection of Alzheimer's Disease and Related Dementias (ADRD) in primary care settings. *Northwestern Pepper Center: Center for Applied Health Research on Aging, Grand Rounds Lecture*, November, 18<sup>th</sup>, 2022.

- 10. **Thompson, L.,** Improving Early Detection of Alzheimer's Disease and Related Dementias for Research and Clinical Care. *Alzheimer's Association Rhode Island Chapter, Brian D. Ott Annual Research Symposium,* December 7<sup>th</sup>, 2022.
- 11. **Thompson, L.** Neuroethics and Diversity in Neuropsychology. *Guest Lecture for University of Rhode Island Course Neuroethics & Diversity (NEU 210). February 15th, 2023.*
- 12. **Thompson**, L. Remote and in-clinic digital cognitive screening outperforms the MoCA to distinguish cerebral amyloid status among cognitively healthy older adults. Technology & Dementia Preconference, *Alzheimer's Association International Conference*, *Amsterdam*, *Netherlands*, July 15<sup>th</sup> 2023.
- 13. **Thompson, L.** Digital approaches to detecting cognitive decline among older adults in primary care settings. *Advance-CTR Clinical/Translational Research Seminar Series*. *February* 8<sup>th</sup>, 2024.
- 14. Lecture for: ECHO® Learning Series: Supporting People Living with Dementia and their Care Partners Identifying Community Clinical Linkages to Deliver Dementia and Age-Friendly Care
- 15. A-CTR External Advisory Committee Meeting Showcase Presentation
- 16. Dept of Family Medicine at Brown
- 17. RI Advisory Council on Alzheimer's Disease and Related Disorders

#### **GRANTS**

PAST:

2020-2023

# Implementing digital cognitive tests for the detection of preclinical AD (PI: Thompson, L)

AACSF-20-685786

Alzheimer's Association

This project will This project will test a novel approach to screening for subtle cognitive changes that occur in preclinical AD, using a mobile (smartphone-based) cognitive test that is cost effective, non-invasive, and has the potential to be used across a variety of settings.

Role: Principal Investigator

2021 - 2023

Validation of the DCTclock drawing task as a screening tool for prodromal Alzheimer's disease in the Framingham Heart Study (PI: Thompson, L)

R21-AG072588-01

NIH/NIA

The objective of this study is to conduct a large-scale validation of the DCTclock, a

digital cognitive screening measure, using existing data from the Framingham Heart Study. Our goal is to advance the DCTclock as a first line screening measure for identifying persons at risk for AD and related dementias in order to improve early detection and facilitate prevention research.

2019 - 2023

## Atlas of Retinal Imaging in Alzheimer's Study (PI: Snyder, P)

Morton Plant Hospital Association

The objective of this project is to create a 'gold standard' reference database of structural anatomic and functional imaging of the retina, in order to enable the identification and development of both sensitive and reliable markers of AD risk and/or progression.

Role: Co-Investigator

2021 - 2022

# LEADS Diversity Recruitment and Community Engagement in Rhode Island (PI: Lee, A)

Alzheimer's Association

This project will launch two initiatives during the 18-month period of support to promote early onset AD education and collaboration with health care practices that serve URP communities. A key objective is to spur diversity recruitment efforts for LEADS and establish lasting and scalable approaches to URP engagement at our site.

Role: Co-Investigator

2019-2021

Building an Infrastructure and Dynamic Dataset for AD Risk Assessment, extension for Institutional Development Award for Clinical and Translational Research (IDeA-CTR) from the NIGMS. (PI: Padbury, J)

U54GM115677

NIH/NIA

This study leverages machine learning techniques to develop prediction algorithms for Alzheimer's Disease risk using novel biomarkers.

Role: Co-Investigator

**CURRENT:** 

2023-2028

# Accelerating digital cognitive screening for Alzheimer's disease in the Primary Care setting (PI: Thompson, L.)

K23-AG080159

NIH/NIA

The objective of this research is to establish optimized methods for cognitive screening that are accessible, accurate and suitable for primary care settings. This project will

utilize in-office testing using a tablet-based screening tool as well as remote assessment using a smartphone app-based testing platform.

2022-2027

# Longitudinal validation of retinal biomarkers against cerebral biomarkers in preclinical AD (PI: Alber, J.)

R01-AG079241

NIH/NIA

The objective of this research is to advance the identification and validation of discriminatory and accurate retinal biomarkers associated with AD risk, burden, and progression. Retinal biomarkers in symptomatic AD have been investigated, but few studies have analyzed retinal biomarkers in preclinical AD, a critical period for preventative intervention.

Role: Co-Investigator

2021-2025

# Developing novel cognitive and neuroimaging markers of early Alzheimer's disease pathologies (PI: Oh, H)

R01-AG068990

NIH/NIA

The goal of this research is to understand cognitive, functional, and structural changes during normal aging and pathological aging involving Alzheimer's disease pathologies in cognitively normal older adults and to develop novel cognitive and neuroimaging markers of the early stage of the disease pathologies.

Role: Co-Investigator

2022-2023

# Preparing for primary care-based cognitive screening interventions for the early detection of Alzheimer's disease (PI: Thompson, L)

Advance-CTR Pilot Grant, supported by the IDeA-CTR grant (U54GM115677) The objective of this research is to investigate optimized methods for cognitive screening that are accessible, accurate and suitable for primary care settings. This project will utilize in-office testing using a tablet-based screening tool as well as remote assessment using a web-based screening tool.

2021-2023

### Alzheimer's Disease Biomarkers and Risk Disclosure (PI: Salloway, S.)

Warren Alpert Foundation

Validate plasma pTau-181 & pTau-217; digital cognitive assessment, and retinal imaging for early detection of Alzheimer's disease. Validate a machine-learning

algorithm for identifying Alzheimer's risk and refine protocols for safe risk disclosure.

Role: Co-Investigator

#### PENDING:

# Advance Mobile Monitoring of Intraindividual Change in Alzheimer's disease and Related Dementias: Building an Open and Inclusive Infrastructure

Status: Submitted (U19)

Project Period: 07/01/2024 - 06/30/2029

Name of PD/PI: M. Sliwinski

NIH/NIA

Role: Sub-PI, Co-Investigator

# THE NIH PRECISION BRAIN HEALTH NETWORK: Open and Inclusive Measurement of Neuropsychological Change for AD/ADRD Primary Prevention Trials

Status: Submitted (U24)

Project Period: 07/01/2025 - 06/30/2030

Name of PD/PI: M. Sliwinski

NIH/NIA

Role: Sub-PI, Co-Investigator

#### PEER REVIEWER FOR ACADEMIC JOURNALS

Alzheimer's & Dementia

Alzheimer's & Dementia, Alzheimer's & Dementia: DADM

Alzheimer's Research & Therapy

Journal of Alzheimer's Disease

Journal of Prevention of Alzheimer's Disease

Nature Medicine

Journal of the International Neuropsychological Society

Journal of Clinical and Experimental Neuropsychology

Journal of Medical Internet Research

Pilot and Feasibility Studies

#### UNIVERSITY TEACHING, ADVISING and MENTORING ROLES

Brown Undergrad. Independent Study Mentor, BIOL 1950 / 1960:

2020: Grace Johnson, 2023: Natalie Riera

Brown Undergrad. UTRA Scholar (Natalie Riera), 2022, 2023

Brown Undergrad. Lab Volunteer 2021-2022: Zachary LaJoie

Mentor, Brown Diversity Mentoring Program, Spring 2020

Postdoctoral Research Mentor, Memory & Aging Program, 2021-(Sheina Emrani, Alyssa De Vito, Molly Split, Sarah Prieto)

Clinical Psychology Internship Prog. Research Mentor, 2022-(Catherine Dion, Caroline Nester, Rachel Keszycki)

### OTHER DEPARTMENT SERVICE:

*Member*, Justice, Equity, Diversity, & Inclusion Council, Brown Clinical Neuropsychology Training Program, 2021 - present

Poster Judge, Mind Brain Research Day, Brown University, 2022

*Member*, DPHB Antiracism Community Outreach Subcommittee, 2022 – 2023

*Member*, Butler Hospital Institutional Review Board, 2024-present

### **CONSULTING:**

Global Cohort Development Consultant, Davos Alzheimer's Collaborative, 2021- 2023