



1. Segmentation of medial temporal lobe subregions in a nearly isotropic space using T2-weighted MRI with anisotropic resolution

Presenter: Yue Li

Authors: Yue Li, Pulkit Khandelwal, Long Xie, Laura E. M. Wisse, Nidhi Mundada, Christopher A. Brown, Emily McGrew, Amanda Denning, Sandhitsu R. Das, David A. Wolk, Paul A. Yushkevich

Affiliation: University of Pennsylvania

2. Distinct laminar networks of neuronal covariance in pathologic subgroups of behavioral variant frontotemporal dementia

Presenter: Daniel Ohm

Authors: Daniel T. Ohm · Hyung Seok Roh · Min Chen · Sanaz Arezoumandan · Jeffrey Phillips · Katheryn Cousins · David Wolk · Edward B. Lee · Corey T. McMillan · James Gee · David J. Irwin

Affiliation: Penn FTD Center

3. Surface-based parcellation and vertex-wise analysis of ultra high-resolution ex vivo 7 tesla T2w MRI in Alzheimer's disease and related dementias

Presenter: Pulkit Khandelwal

Authors: Pulkit Khandelwal, Michael Tran Duong, Lisa Levorse, Amanda E. Denning, Nathaniel Gauthier, Ved Shenoy, Constanza Fuentes, Shokufeh Sadaghiani, Sadhana Ravikumar, Sydney Lim, Sanaz Arezoumandan, Alejandra Bahena, Eunice Chung, Madigan Bedard, Noah Capp, Ranjit Ittyerah, Karthik Prabhakaran, Gabor Mizsei, Marianna Gabrielyan, Monica Munoz, Theresa Schuck, John Robinson, Daniel Ohm, Edward B. Lee, John Q. Trojanowski, Corey McMillan, Murray Grossman, David Irwin, M. Dylan Tisdall, Sandhitsu R. Das, Laura E.M. Wisse, David A. Wolk, Paul A. Yushkevich

Affiliation: University of Pennsylvania

4. Association of quantitative measurements of postmortem tau tangle and thread pathology with antemortem cortical thickness measurements in neuropathologically confirmed Alzheimer's Disease continuum patients

Presenter: Amanda Denning

Authors: Amanda E Denning, Ranjit Ittyerah, Niyousha Sadeghpour, Lisa M Levorse, Eunice Chung, Chinmayee Athlaye, Sadhana Ravikumar, Mengjin Dong, Michael Tran Duong, Yue Li, Ademola Ilesanmi,

Stanislau Hrybouski, Lasya P Sreepada, Philip Sabatini, MaKayla Lowe, Alejandra Bahena, Ryohei Watanabe, Boram Kim, Robin de Flores, John L. Robinson, Theresa Schuck, Daniel T Ohm, Sanaz Arezoumandan, Ricardo Insausti, Laura E.M. Wisse, David J Irwin, Eddie B Lee, Sandhitsu R. Das, David A Wolk, and Paul A. Yushkevich

Affiliation: Neuroscience Graduate Group

5. Amyloid-Tau to Neurodegeneration mismatch from inter-modality image translation using deep learning

Presenter: Xueying Lyu

Authors: Xueying Lyu, Paul A. Yushkevich, Mengjin Dong, Pulkit Khandelwal, Christopher Brown, Michael Tran Duong², Yue Li, Long Xie, Laura Wisse, Sandhitsu R. Das^{1*}, David A. Wolk^{1*}

Affiliation: University of Pennsylvania

6. Idiopathic predominant: a clinically relevant, neurofibrillary tangle subtype of Alzheimer's Disease

Presenter: Helen Cai

Authors: John L Robinson, Nicholas Loh, Daniel T Ohm, Jeffery S Phillips, David J Irwin, Edward B Lee

Affiliation: Center for Neurodegenerative Disease Research

7. Examining the spatial transcriptomic changes in the hippocampal subregion CA1 of a mouse model of TDP-43 proteinopathy

Presenter: Maja Hoejvang Soerensen

Authors: Maja Hoejvang Soerensen, Virginia M.-Y. Lee, and Silvia Porta

Affiliation: Center for Neurodegenerative Disease Research (CNDP), Department of Pathology and Laboratory Medicine, University of Pennsylvania

8. Authentic Site-Specific PTMs in Tau and α -Synuclein Using GCE

Presenter: Ibrahim Saleh

Authors: Ibrahim G. Saleh, Jennifer Ramirez*, Marie Shimogawa, Bernard Abakah, Grace Shin Hye Park*, Elizabeth Rhoades*, E. James Petersson*

Affiliation: Chemistry, SAS

9. Structural and Functional Characterization of N-terminally Acetylated Alpha Synuclein

Presenter: Emily Brackhahn

Authors: Emily Brackhahn, Paola Miranda-Castrodad, Hudson Lee, David Eliezer, PhD, Elizabeth Rhoades, PhD

Affiliation: SAS Department of Chemistry

10. Authentic Site-Specific PTMs in α -Synuclein Using Genetic Code Expansion

Presenter: Bernard Abakah

Authors: Bernard Abakah, Marie Shimogawa, Taylor Tomlinson, Emily Brackhahn, Elizabeth Rhoades, E. James Petersson

Affiliation: SAS - Department of Chemistry - UPenn

11. Brain telomere length associates with hippocampal ptau and is mediated by DNA methylation

Presenter: Nadia Dehghani

Authors: Nadia Dehghani, Qijun Chen, Anil R. Wadhwani, David C. Goldberg, Jin Jin, Lasya P. Sreepada, Isabella Leone, Angelina Jala, David A. Wolk, Edward B. Lee, Kurt Farrell, John F. Crary, PART Working Group, Wanding Zhou, F. Bradley Johnson, Corey T. McMillan

Affiliation: University of Pennsylvania

12. Epigenetic Signatures of Regional Tau Pathology in the Aging and Pathological Brain

Presenter: Anil Wadhwani

Authors: Anil R. Wadhwani, MD, PhD; David Goldberg; David A. Wolk, MD; Edward B. Lee, MD, PhD; Kurt Farrell, PhD; John Crary, MD, PhD; David A. Bennet, MD; Philip De Jager, MD, PhD; Julie Schneider, MD; PART Working Group; Wanding Zhou, PhD; and Corey T. McMillan, PhD

Affiliation: University of Pennsylvania

13. Probing the α S interactome using μ Map photoproximity labeling

Presenter: Grace Park

Authors: Marshall G. Lougee, PhD, Virginia M.-Y. Lee, PhD, James Petersson, PhD

Affiliation: Department of Biochemistry and Biophysics

14. A Conceptual Hierarchical Framework for Identifying Relevant ex vivo MRI Biomarkers in FTL

Presenter: Mohammed Saqib

Authors: Mohammed Saqib, Corey McMillan, Sandhitsu Das

Affiliation: University of Pennsylvania

15. Contextual Determinants and Polygenic Risk of Dementia and Cognition in the Multi-Ethnic Study of Atherosclerosis

Presenter: Diane Xue

Authors: Diane Xue, PhD, Elizabeth E Blue, PhD, Timothy M Hughes, PhD, Wendy S Post, MD, Alison E Fohner, PhD

Affiliation: University of Pennsylvania

16. Investigating the Effects of Backbone Modifications on the Aggregation of Alpha-Synuclein in vitro

Presenter: Evan Yanagawa

Authors: Evan Yanagawa, Kohei Sato, James Petersson

Affiliation: University of Pennsylvania, Chemistry Department

17. Highly Tunable Bimane-Based Fluorescent Probes: Design, Synthesis, and their Application to Study Neurodegeneration

Presenter: Venkatesh Yarra, PhD

Authors: Venkatesh Yarra, PhD and E. James Petersson PhD

Affiliation: University of Pennsylvania

18. Plasma phosphorylated HMGB2 as a Potential Biomarker for Parkinson's Disease

Presenter: Jingqi Fan

Authors: Jingqi Fan, Elaine Liu, Clementina Mesaros, George Kannarkat, Ian Alexander Blair

Affiliation: University of Pennsylvania

19. High mobility group box proteins as potential new biomarkers for Alzheimer's disease diagnosis and prognosis

Presenter: Elaine Liu

Authors: Elaine Liu, Jingqi Fan, Clementina Mesaros, George Kannarkat, Ian Alexander Blair

Affiliation: University of Pennsylvania

20. Chemical Chaperones Mitigate Shift Work Short Sleep Induced Cognitive Impairment

Presenter: William Duncan

Authors: William Duncan, Kamalini Sengupta, Kateryna Shcherbakova, Sydney Mason, Ewa Strus & Nirinjini Naidoo

Affiliation: Division of Sleep Medicine, Perelman SOM, University of Pennsylvania



21. Enrichment of patients with concomitant LATE on the Alzheimer’s disease continuum using hippocampal volume

Presenter: Nidhi Mundada

Authors: Nidhi S. Mundada, Xueying Lyu, Niyousha Sadeghpour, Christopher Brown, Emily McGrew, Long Xie, Paul Yushkevich, Sandhitsu R. Das, David A. Wolk

Affiliation: University of Pennsylvania

22. [18F]-PI-2620 uptake in the medial temporal lobes discriminates Alzheimer’s disease from normal cognition and non-Alzheimer’s dementias

Presenter: Jeff Phillips

Authors: Jeffrey S. Phillips, Dahlia Kamel, Sevila Temirova, Marianthi Hareras, Chigozie Ibe, Quinn Hlava, Emily Xie, Katheryn A. Q. Cousins, Leslie M. Shaw, Sandhitsu R. Das, Jeffrey Maneval, Sara Manning, Christopher Brown, Katherine Lopez, Richard Keegan, Andrew Stephens, Corey T. McMillan, David J. Irwin, Liz Li, Ilya M. Nasrallah, and David A. Wolk

Affiliation: Penn FTD Center, Dept. of Neurology

23. Alzheimer's disease (AD) pathway-specific polygenic risk score training and performance evaluation in the UK Biobank Cohort

Presenter: Katrina Bazemore

Authors: K. Bazemore, J. Sha, W.-P. Lee, J. Haut, Y. Zhao, T. Iqbal, O. Valladares, J. Manuel, L.-S. Wang, G.D. Schellenberg, A.C. Naj

Affiliation: University of Pennsylvania Perelman School of Medicine

24. Assessing white matter hyperintensities on matched antemortem and postmortem MRI

Presenter: Zahra Khodakarami

Authors: Zahra Khodakarami, Pulkrit Khandelwal, Michael Tran Duong, Amanda E. Denning, Sydney A. Lim, Eunice Chung, Alejandra Bahena, Karthik Prabhakaran, Gabor Mizsei, Theresa Schuck, Winifred Trotman, John Robinson, Daniel T Ohm, Adam M. Brickman, Edward B Lee, David J Irwin, John A Detre, M Dylan Tisdall, Sandhitsu R Das, David A Wolk, Paul A Yushkevich, Sheina Emrani

Affiliation: University of Pennsylvania

25. Neuropsychological dysfunction differentially relates to desegregation of brain networks in behavioral variant frontotemporal dementia

Presenter: Melanie Matyi, PhD

Authors: Melanie A. Matyi, Hamsanandini Radhakrishnan, Jeffrey S. Phillips, Philip A. Cook, Emma Rhodes, James C. Gee, David J. Irwin, Corey T. McMillan & Lauren Massimo

Affiliation: Frontotemporal Degeneration Center

26. Cognitive reserve in ALS: The role of occupational skills and requirements

Presenter: Emma Rhodes

Authors: Emma Rhodes, PhD; Sebleh Alfa, BS; Hannah A. Jin, BS; Lauren Massimo, PhD, CRNP; Lauren Elman, MD; Defne Amado, MD; Michael Baer, MD; Colin Quinn, MD & Corey T. McMillan, PhD

Affiliation: University of Pennsylvania Frontotemporal Degeneration Center

27. Neuroinflammation as an independent contributor to global cognitive dysfunction in frontotemporal lobar degeneration

Presenter: Sheina Emrani

Authors: Sheina Emrani, PhD, Katheryn A.Q. Cousins, PhD, Sanaz Arezoumandan, MD, Noah Capp, Daniel T. Ohm, PhD, Philip Sabatini, Parham Pouladvand, Dawn Mechanic-Hamilton, PhD, Edward B. Lee, MD, PhD, David A. Wolk, MD, Corey McMillan PhD, David J. Irwin, MD

Affiliation: Frontotemporal Lobar Degeneration Center, University of Pennsylvania, UPenn Alzheimer's Disease Research Center, University of Pennsylvania, Center for Neurodegenerative Research, University of Pennsylvania

28. Electronic health records to test race and multimorbidity contributions to plasma biomarkers

Presenter: Katheryn Cousins

Authors: Katheryn A.Q. Cousins, Rory Boyle, Colleen Morse, Anurag Verma, Marina Serper, Nadia Dehghani, Penn Medicine BioBank, Corey T. McMillan, Leslie M. Shaw, David A. Wolk

Affiliation: University of Pennsylvania

29. Demographic and Clinical Predictors of Participant Engagement in SUSTAIN

Presenter: Emily Kulpa, DO

Authors: Emily Kulpa, DO, Isabelle Duerr, MD, Rachel Chiu, BA, Kristin Montague, BS, Ashleigh Fenton, BS, Arushi Kapoor, MD, Joel E. Streim, MD, Mary Beth Connolly Gibbons, PhD

Affiliation: Department of Psychiatry, University of Pennsylvania, Philadelphia, PA and Department of Psychiatry, Perelman School of Medicine University of Pennsylvania, Philadelphia, PA

30. Developing an anatomically valid segmentation protocol for anterior regions of the medial temporal lobe

Presenter: Niyousha Sadeghpour

Authors: Niyousha Sadeghpour, Sydney A. Lim, Anika Wuestefeld, Amanda Denning, Ranjit Ittyerah, Winifred Trotman, Eunice Chung, Shokufeh Sadaghiani, Karthik Prabhakaran, Madigan L. Bedard, Daniel T. Ohm, Emilio Artacho-Pérula, Maria Mercedes Iñiguez de Onzoño Martin, Monica Muñoz, Francisco Javier Molina Romero, José Carlos Delgado González, María del Mar Arroyo Jiménez, Maria del Pilar Marcos Rabal, Sandra Cebada Sánchez, Carlos de la Rosa Prieto, Ricardo Insausti, Corey McMillan, Murray Grossman, Edward B. Lee, John A. Detre, John Q. Trojanowski, M. Dylan Tisdall, David J. Irwin, David A. Wolk, Paul A. Yushkevich, Laura EM. Wisse

Affiliation: University of Pennsylvania