Gabriel Kennedy

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EDUCATION

PhD Duke University, Genetics and Genomics   *August 2022-Present*

BS Tufts University, Psychology   *May 2019*
Summa Cum Laude
Minors: Philosophy, Drama

AWARDS

Aging and Sleep 2020 Scientific Meeting Abstract Winner in the category of Translational Research

Tufts University Dean's List, All semesters   *Sept 2015 to May 2019*

RESEARCH EXPERIENCE

Graduate Student, Goldberg Lab   *June 2023-Present*
PI: Amy Goldberg
Duke University
- Developing an integrated model of genomic-archeological data utilizing an Approximate Bayesian Computation Algorithm
- Examining the effect of agricultural transitions in Neolithic South America

Graduate Student, Rotations   *Aug 2022-May 2023*
PIs: Raluca Gordan, Gregory Wray, Tim Reddy, Allison Ashely-Koch, Amy Goldberg
Duke University
- Completed a variety of genomic-based projects: 1) sequence context impacts on mismatch repair, 2) combinatorial regulatory element effects with machine learning alorithms, 3) contrasting CRISPR-Cas9 and CRISPR-Cas12 transfection for glucocorticoid responses to dexamethasone, 4) transcription factor binding in neural tube disorders, 5) assortative mating impacts on selection-like admixture signals.

Data Analyst, Mormino Lab   *Aug 2021 – Aug 2022*
PI: Elizabeth Mormino, PhD
Stanford University
- Genomic analysis using polygenic risk scoring, GWAS, and data harmonization with a focus on sleep and Alzheimer's Disease biomarkers in healthy older controls using data from the A4 Study
- Amyloid PET harmonization and analysis through leveraging data acquired across the national ADRC program with the goal of curating pre-existing amyloid scans into a cohesive resource as part of the SCAN-Amyloid Legacy project
- Supervision and training of personnel involved with amyloid and tau PET/MR data collection for the Stanford Alzheimer's Disease Research Center Imaging Core

Clinical Research Coordinator Associate, Mormino Lab and FIND Lab   *June 2019 - Aug 2021*
PI: Elizabeth Mormino, PhD & Michael Greicius, MD, MPH

Stanford University
- Amyloid PET/MR data collection, processing, harmonization, analysis, and data outreach for the Stanford Alzheimer's Disease Research Center Imaging Core
- Analysis of proteomic and imaging data through various clustering and pathway methodologies
- Data collection and analysis for Alzheimer's Disease Pedigree study

Research Assistant, Spatial Cognition Lab *Sept 2018 - May 2019*
Tufts University
PI: Holly Taylor, PhD & supervised by Christopher Thomas, PhD
- Collection of data and analysis for a project regarding human spatial orientation to the cardinal directions based on training in different modalities

Research Assistant, Pacific Institute for Research and Evaluation *Jan 2018 - Feb 2018*
Chapel Hill, NC
Managed by Alan Stein-Seroussi, PhD
- Developed online surveys for the examination of drunk driving and prescription drug usage
- Data analysis and presentation of survey data using SPSS

CONFERENCE PRESENTATIONS

Abstract Poster Presentations
Kennedy, G., Gopalan, S., Goldberg, A. "Modelling Human Population Growth with an Integrated Archeological-Genetic Framework." The Allied Genetics Conference, 2024.

Kennedy, G., Moore, A., Mahoney, E., Dumitrescu, L., Sperling, R., Deming, Y., Cruchaga, C., Hohman, T.J., Mormino, E.C. "CSF Polygenic Risk AD Biomarkers Predict Brain Amyloid and Free Recall," Alzheimer's Association International Conference, 2021.

Kennedy, G., Winer, J., Deters, K., Mahoney, E., Le Guen, Y., Hohman, T.J., Mormino, E.C. "Genetic determinants of sleep are associated with β-amyloid burden," Aging and Sleep, 2020.
*This presentation won the award for Best Translational Research Abstract

PUBLICATIONS

Published Journal Papers
Le Guen, Y., Raulin, A.C., Logue, M.W., Sherva, R., Belloy, M., Eger, SJ., Chen, A., **Kennedy, G.**, Kuchenbecker, L., O'Leary, J.P., Zhang, R., Merritt, V.C., Panizzon, M.S., Hauger, R.L., Gaziano, J.M., Bu, G., Thornton, T.A., Farrer, L.A., Napolioni, V., He, Z., Greicius, MD. "Association of African Ancestry-Specific APOE Missense Variant R145C With Risk of Alzheimer Disease," *Jama*, 2023, 329(7), PMID: 36809323, PMCID: PMC9945061, DOI: 10.1001/jama.2023.0268

Young, C., Johns, E., **Kennedy, G.**, Belloy, B., Insel, PS., Greicius, M.D., Sperling, R.A., Johnson, K.A., Poston, K., Mormino, E.C. "APOE effects on regional tau in preclinical Alzheimer's disease," *Mol Neurodegeneration*, 2023, 18(1). https://doi.org/10.1186/s13024-022-00590-4

Wilson, E., Young, C., Benitez, J.R., Swarovski, M.S., Feinstein, I., Vandijck, M., Le Guen, Y., Kasireddy, N.M., Shahid, M., Corso, N., Wang, Q., **Kennedy, G.**, Trelle, A.N., Lind, B., Channappa, D., Belnap, M., Ramirez, V., Skylar-Scott, I., Younes, K., Yutsis, M.V., Le Bastard, N., Quinn, J.F., Van Dyck, C.H., Nairn, A., Fredericks, C.A., Tian, L., Kerchner, G.A., Montine, T.J., Sha, S.J., Davidzon, G., Henderson, V., Longo, F.M., Greicius, M.D., Wagner, A.D., Wyss-Coray, T., Poston, K., Mormino, E.C.,

Andreasson, K.I. "Performance of a fully-automated Lumipulse plasma phospho-tau181 assay for Alzheimer's disease," *Alzheimer's Res Ther*, 2022, 14(1), PMID: 36371232, PMCID: PMC9652927, DOI: 10.1186/s13195-022-01116-2

Eger, S., Le Guen, Y., Khan, R., Hall, J., **Kennedy, G.**, Zaharchuk, G., Couthouis, J., Brooks, W.S., Velakoulis, D., Napolioni, V., Belloy, M.E., Dalgard, C.L., Mormino, E.C., Gitler, A.D., Greicius, M.D. "Confirming Pathogenicity of the F386L PSEN1 Variant in a South Asian Family with Early-Onset Alzheimer's Disease," *Neurology*, 2021, 8(1):e647. PMID: 34901437, PMCID: PMC8655848, DOI: 10.1212/NXG.0000000000000647

Winer, J.R., Deters, D.K., **Kennedy, G.**, Jin, M., Goldstein-Piekarski, A., Poston, K.L., Mormino, E.C. "Association of Short and Long Sleep Duration With Amyloid-β Burden and Cognition in Aging," *Jama Neurology*, 2021, 78(10). PMID: 34459862, PMCID: PMC8406215, DOI: 10.1001/jamaneurol.2021.2876

Le Guen, Y., Napolioni, V., Belloy, M., Yu, E., Krohn, L., Ruskey, J., Gan-Or, Z., **Kennedy, G.**, Eger, S., Greicius, M. "Common X-chromosome variants are associated with Parkinson's disease risk," *Ann Neurol*, 2021. PMID: 33583074, PMCID: PMC8601399, DOI: 10.1002/ana.26051

Le Guen, Y., Belloy, M.E., Napolioni, V., Eger, S.E., **Kennedy, G.**, Tao, R., He, Z., Greicius, M.D., Alzheimer's Disease Neuroimaging Initiative. "A novel age-informed approach for genetic association analysis in Alzheimer's disease," *Alzheimer's Res Ther,* 2021, 13(1):72. PMID: 33794991, PMCID: PMC8017764, DOI: 10.1186/s13195-021-00808-5

Chen, K., Toueg, T., Koran, M.E.I., Davidzon, G., Zeineh, M., Holley, D., Gandhi, H., Halbert, K., Boumis, A., **Kennedy, G.**, Mormino, E., Khalighi, M., Zaharchuk G. "True ultra-low-dose amyloid PET/MRI enhanced with deep learning for clinical interpretation," *EJNMMI*, 2021.

Chen, K., Holley, D., Halbert, K., Toueg, T., Boumis, A., **Kennedy, G.**, Mormino, E., Khalighi, M., Zaharchuk G. "Quantitative Assessment of Deep Learning-enhanced Actual Ultra-low-dose Amyloid PET/MR Imaging," *J Nucl Med*, 2020, 61:521.

PROFESSIONAL TRAINING

Additional Positions:

Directory of External Advocacy, Duke Graduate and Professional Student Government   *2023-Present*
- Led advocacy trips to DC to speak on behalf of graduate students with federal representatives.
- Wrote letters of support for national bills prior to introduction in the House of Representatives
- Hosted discussions with several state senators and representatives on student issues
- Member of the Duke Voting Cabinet for the 2024 General Election

Relevant Classwork:

Grant Writing, Duke University	*Sept – Dec 2023*
Human Genetics, Duke University	*Jan – May 2023*
Parameter Inference, Duke University	*Mar – April 2024*
Methodology of Research in Behavioral Sciences, Stanford University	*Sept – Dec 2019*
Essentials of Clinical Research at Stanford, Stanford University	*Jan – Mar 2020*
Data Analysis with Python, Stanford University	*Oct – Nov 2021*

Programs:

Amyloid Imaging Reading, Life Molecular Imaging   *Aug 2019*
- A program designed to train and authorize the ability to read Amyloid PET scans

Conferences:
American Society of Human Genetics,   *Nov 2024*
The Allied Genetics Conference,   *Mar 2024*
Alzheimer's Association International Conference, (Online and in person)   *July 2020, July 2021*
Aging and Sleep, (Online)   *Nov 2020*
Bay Area Memory Meeting   *Aug 2019, Nov 2020*
Human Amyloid Imaging   *Jan 2019*

LANGUAGES

English: Native Language
Spanish: Intermediate Reader/Writer, Novice Speaker
Latin: Intermediate Reader/Writer

SKILLS

Programming Languages:
- R, Advanced
- Python, Advanced
- Bash, Advanced
- HTML, Intermediate
- Matlab, Intermediate
- Java, Basic
- C++, Basic
- Perl, Basic

Applications:
- MS Excel, Advanced
- Adobe Illustrator, Advanced
- Adobe Premiere, Intermediate
- Adobe Photoshop, Intermediate
- SPSS, Intermediate
- Adobe After Effects, Basic