Stanford

Mary Ellen Irene Koran

- Affiliate, Dean's Office Operations - Dean Other
- Resident in Radiology

Bio

BIO

Mary Ellen grew up in Annapolis, Maryland. She attended college at Duke University, where she majored in Biomedical Engineering with a minor in Chemistry. After graduation, Mary Ellen moved to Nashville, Tennessee to join the Medical Scientist Training Program (MSTP) and earned her combined MD/PhD at Vanderbilt University. She completed her PhD in Human Genetics in the laboratory of Dr. Tricia Thornton-Wells, where she studied the radiogenomics of Alzheimer's Disease. She developed a pipeline of tools to analyze and quantify images from MR and PET images, which she then used as quantitative traits in genetic analyses to tease apart the etiology of Alzheimer Disease. She is continuing her quantitative MR and PET imaging research with various mentors across Stanford.

Outside of radiology, Mary Ellen is excited about curriculum development, wellness, mentorship, and leadership. She developed and co-leads the RadCombinator curriculum for protected research time for radiology residents, co-leads the radiology wellness committee, for which she secured funding for a resident wellness program, is a member of the GME Women in Medicine Leadership Council, and is co-chair of the GME Women in Medicine Community Development committee. She is also an active mentor through the Women in Medicine Mentorship Program and the Stanford Women Association of Physician Scientists (SWAPS).

Outside of work, Mary Ellen enjoys swimming with the Stanford Masters' team, shopping farmer's markets, mountain biking, and hiking the amazing trails around Northern California, all with her husband Cody. They also love playing with their dog, Bowser.

EDUCATION:

2017 – Present
Stanford University – Palo Alto, CA
Department of Radiology
Resident Physician

2016 – 2017
University of Tennessee – Nashville, TN
Department of Internal Medicine
Intern Physician

2009 – 2016

Vanderbilt University – Nashville, TN

M.D. Medical Scientist Training Program

2011 – 2014

Vanderbilt University – Nashville, TN

Ph.D. Human Genetics

2005 – 2009

Duke University – Durham, NC

B.S.E., Graduation with Distinction

Biomedical Engineering

AWARDS AND HONORS:

Etta Kalin Moskowitz Fund Research Award

Awarded by Stanford University Radiology Residency Program, 2017

Founder's Award

Awarded by Vanderbilt University School of Medicine to 1st in class, 2016

Glasgow-Rubin Citation for Academic Achievement

Awarded by Vanderbilt University School of Medicine to 1st female in class, 2016

Roentgen Award

Awarded by Vanderbilt University School of Medicine Department of Radiology, 2016

Fellow and Resident Annual Meeting Scholarship

Awarded by the World Congress of Interventional Oncology for the annual WCIO Conference, 2016

Alpha Omega Alpha Honor Medical Society

Vanderbilt University, 2015

Dr. Constantin Cope Medical Student Research Award

Awarded by the Society of Interventional Radiology Foundation, 2015

Society of Interventional Radiology Medical Student Travel Scholarship

Awarded by the Society of Interventional Radiology for the annual SIR Conference, 2014

Flexner Dean's Lecture Student Lecturer

Awarded by Vanderbilt University, 2013

NIGMS Travel Fellowship

Awarded by the National Institute of General Medical Sciences for the Short Course on Statistical Genetics and Genomics, 2011

Medical Scientist Training Program

Funded by NIH T32 GM07347, full tuition scholarship and stipend for both medical and graduate school, 2009 – 2016

Baldwin Scholars Unsung Heroine Award

Awarded by Duke University, 2009

Research in Practice Program Grant

Awarded by Duke University, 2008

Pratt Undergraduate Research Fellowship

Awarded by Duke University, 2007-2009

PUBLICATIONS:

https://www.ncbi.nlm.nih.gov/sites/myncbi/1hIErl5HHAqAz/bibliography/54643152/public/?sort=date&direction=ascending

Publications

PUBLICATIONS

- **APOE epsilon4-specific associations of VEGF gene family expression with cognitive aging and Alzheimer's disease.** *Neurobiology of aging*
  Moore, A. M., Mahoney, E., Dumitrescu, L., De Jager, P. L., Koran, M. E., Petyuk, V. A., Robinson, R. A., Ruderfer, D. M., Cox, N. J., Schneider, J. A., Bennett, D. A., Jefferson, A. L., Hohman, et al
  2019

- **Brain expression of the vascular endothelial growth factor gene family in cognitive aging and alzheimer's disease.** *Molecular psychiatry*
  Mahoney, E. R., Dumitrescu, L., Moore, A. M., Cambronero, F. E., De Jager, P. L., Koran, M. E., Petyuk, V. A., Robinson, R. A., Goyal, S., Schneider, J. A., Bennett, D. A., Jefferson, A. L., Hohman, et al
  2019

- **Performance Comparison of Individual and Ensemble CNN Models for the Classification of Brain 18F-FDG-PET Scans.** *Journal of digital imaging*
  Nobashi, T., Zacharias, C., Ellis, J. K., Ferri, V., Koran, M. E., Franc, B. L., Iagaru, A., Davidzon, G. A.
  2019

- **Sex differences in the association between AD biomarkers and cognitive decline.** *Brain imaging and behavior*
  Koran, M. E., Wagener, M., Hohman, T. J.
  2017; 11 (1): 205–13

- **Five percent dextrose maximizes dose delivery of Yttrium-90 resin microspheres and reduces rates of premature stasis compared to sterile water.** *Biomedical reports*
  Koran, M. E., Stewart, S., Baker, J. C., Lipnik, A. J., Banovac, F., Omary, R. A., Brown, D. B.
  2016; 5 (6): 745–48
- **Procedural Impact of a Dedicated Interventional Oncology Service Line in a National Cancer Institute Comprehensive Cancer Center.** *Journal of the American College of Radiology : JACR*
  Koran, M. E., Lipnik, A. J., Baker, J. C., Banovac, F., Omary, R. A., Brown, D. B.
  2016; 13 (9): 1145–50
- **Impact of family structure and common environment on heritability estimation for neuroimaging genetics studies using Sequential Oligogenic Linkage Analysis Routines.** *Journal of medical imaging (Bellingham, Wash.)*
  Koran, M. E., Thornton-Wells, T. A., Jahanshad, N., Glahn, D. C., Thompson, P. M., Blangero, J., Nichols, T. E., Kochunov, P., Landman, B. A.
  2014; 1 (1): 014005
- **Genetic interactions found between calcium channel genes modulate amyloid load measured by positron emission tomography.** *Human genetics*
  Koran, M. E., Hohman, T. J., Thornton-Wells, T. A.
  2014; 133 (1): 85–93
- **Genetic interactions within inositol-related pathways are associated with longitudinal changes in ventricle size.** *Journal of Alzheimer's disease : JAD*
  Koran, M. E., Hohman, T. J., Meda, S. A., Thornton-Wells, T. A.
  2014; 38 (1): 145–54
- **Interactions between GSK3# and amyloid genes explain variance in amyloid burden.** *Neurobiology of aging*
  Hohman, T. J., Koran, M. E., Thornton-Wells, T. A.
  2014; 35 (3): 460–65
- **Genetic variation modifies risk for neurodegeneration based on biomarker status.** *Frontiers in aging neuroscience*
  Hohman, T. J., Koran, M. E., Thornton-Wells, T. A.
  2014; 6: 183
- **Differences in age-related effects on brain volume in Down syndrome as compared to Williams syndrome and typical development.** *Journal of neurodevelopmental disorders*
  Koran, M. E., Hohman, T. J., Edwards, C. M., Vega, J. N., Pryweller, J. R., Slosky, L. E., Crockett, G., Villa de Rey, L., Meda, S. A., Dankner, N., Avery, S. N., Blackford, J. U., Dykens, et al
  2014; 6 (1): 8
- **Genetic modification of the relationship between phosphorylated tau and neurodegeneration.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Hohman, T. J., Koran, M. E., Thornton-Wells, T. A.
  2014; 10 (6): 637–45.e1
- **Epistatic genetic effects among Alzheimer's candidate genes.** *PloS one*
  Hohman, T. J., Koran, M. E., Thornton-Wells, T.
  2013; 8 (11): e80839
- **Associations between KCNJ6 (GIRK2) gene polymorphisms and pain-related phenotypes.** *Pain*
  Bruehl, S., Denton, J. S., Lonergan, D., Koran, M. E., Chont, M., Sobey, C., Fernando, S., Bush, W. S., Mishra, P., Thornton-Wells, T. A.
  2013; 154 (12): 2853–59
- **Genetic interactions associated with 12-month atrophy in hippocampus and entorhinal cortex in Alzheimer's Disease Neuroimaging Initiative.** *Neurobiology of aging*
  Meda, S. A., Koran, M. E., Pryweller, J. R., Vega, J. N., Thornton-Wells, T. A.
  2013; 34 (5): 1518.e9–18