Fanny M. Elahi, MD, DPhil

Assistant Professor
Department of Neurology
Department of Neuroscience
Department of Pathology, Molecular and Cellular-Based
Medicine
Friedman Brain Institute
Ronald M. Loeb Center for Alzheimer's Disease
Cardiovascular Research Institute
fanny.elahi@mssm.edu | (646) 421-5149 | www.vascbrain.com

Icahn School of Medicine at Mount Sinai Annenberg Building 20-50, Box 1137 One Gustave L. Levy Place New York, NY 10029-6574

PERSONAL STATEMENT

I am a physician-scientist with a doctorate in neurogenetics, residency in neurology, and a fellowship in neurodegenerative disorders. I have gained multi-disciplinary domain knowledge, clinical, scientific, and technical skills required for therapeutically oriented translational research in neurodegenerative diseases. I joined the UCSF faculty of Neurology in 2018 where I built a therapeutic discovery program for genetic vasculopathies, and in 2022, was recruited to the Icahn School of Medicine at Mount Sinai to establish a world-class fluid biomarker research program in neurodegenerative disorders and to build a bed to benchside translational research program focused on vascular neurodegenerative diseases. In my clinical practice, I evaluate and treat patients with progressive neurobehavioral dysfunctions, cerebrovascular disease, leukodystrophies, classical diagnoses of Alzheimer's disease, frontotemporal dementias, and Parkinson's spectrum disorders. My research has focused on developing biomarkers and approaches for quantification of immuno-vascular diseases, with an all-in-human pipeline. We combine molecular and cellular phenotyping using human biospecimens and iPSC-derived in vitro cellular models with clinical and imaging data to identify the molecular and cellular correlates of human phenotypes suitable for therapeutic interventions. My collaborations involve investigations of fluid biomarkers across neurological disorders, especially vascular and neuropsychiatric disorders, and my lab's work is currently focused on using our bed to benchside pipeline for discovery of therapeutics for monogenics of vascular cognitive impairment and dementia, CADASIL (Cerebral Autosomal Dominant Arteriopathy Subcortical Infarcts and Leukoencephalopathy), with relevance to brain vascular aging and dementia.

ACADEMIC APPOINTMENTS

2022 – pres.	Assistant Professor (Investigator Track), Icahn School of Medicine at Mount Sinai Departments of Neurology, Neuroscience, and Pathology, Molecular and Cell-based Medicine Friedman Brain Institute, Ronald M. Loeb Center for Alzheimer's Disease, and Cardiovascular Research Institute
2018 – 2022	Assistant Professor (In Residence), University of California San Francisco (UCSF) Department of Neurology
2015 – 2018	Behavioral Neurology Fellow & Instructor, University of California San Francisco Department of Neurology

EDUCATION

2007 – 2011	Icahn School of Medicine at Mount Sinai Doctor of Medicine (MD)
2004 – 2007	University of Oxford
	DPhil, Neurogenetics, WTCHG
	Advisor: Drs. Simon Fisher, Anthony Monaco, and Christopher Pugh

1999 – 2003 Columbia University

BA, Comparative Literature and Society

Hons. Advisors: Drs. Rita Charon and Gil Anidjar

POST-GRADUATE TRAINING

2015 – 2018	Fellowship, Behavioral Neurology Memory and Aging Center, University of California San Francisco (UCSF)
2012 – 2015	Residency, Neurology Department of Neurology, University of California Los Angeles (UCLA)
2011 – 2012	Medical Internship Department of Medicine, BGDMC, University of Arizona

LICENSURE & BOARD CERTIFICATION

2015 – pres. **Board Certification, Neurology**

American Boards of Psychiatry and Neurology

2012 – pres. **Medical License**

California and New York (A125494)

CURRENT GRANT SUPPORT

2023	Friedman Brain Institute Research Scholars Partnership — Pilot Grant Role: Principal Investigator (Multi-PI)
2022 – 2026	Chan-Zuckerberg Initiative Patient-Partnered Collaborations for Rare Neurodegenerative Disease Role: Contact Principal Investigator
2022 – 2023	Rainwater Charitable Foundation Tau Consortium; Role: Principal Investigator
2022 – 2027	Women's Economic Future Fund Seneca Women & Rockefeller Philanthropy Advisors; Role: Principal Investigator
2021 – 2026	VA - NIA (IK2 CX002180) VA and NIH; Role: Principal Investigator
2021 - 2026	UF1 NS100608 MarkVCID: Biomarkers of Vascular Cognitive Impairment and Dementia (PI: Kramer) NIH funded Consortium; Role: Co-investigator and Co-chair of Biofluid Committee
2020 – 2026	U19 NS12038 DiverseVCID (PIs: DeCarli & Fornage) NIH/NINDS; Role: Co-investigator / Subaward PI
2020 – 2023	R01 NS116990 (PI: Wilcock) NIH/NINDS; Role: Co-investigator/ Subaward PI
2019 – 2025	U19 Post-Stroke Vascular Contributions to Cognitive Impairment and Dementia (PI: Rost) NIH; Role: Co-investigator
2019 – 2023	AHA - Paul Allen Frontiers Group Initiative in Brain Health and Cognitive Impairment Role: Co-investigator/ Subaward PI
2019 – 2023	Donors Cure Foundation: New Vision Award in Alzheimer's Disease Role: Principal Investigator

PAST GRANT SUPPORT

2019 – 2022	Larry L. Hillblom Foundation Start-up Grant Role: Principal Investigator
2019 - 2021	UH3 NS100614 NIH/NINDS; PI: Wang; Role: Co-investigator
2017 - 2018	UCSF Alzheimer's Disease Research Center Pilot Grant Role: Principal Investigator
2016 - 2021	UH2/3 NS100608 NIH; PI: Kramer/DeCarli; Role: Co-investigator and fluid biomarker lead
2016 – 2018	American Academy of Neurology Research Fellowship Fellowship award
2004 – 2007	Medical Research Council DPhil Scholarship Oxford University, Pre-doctoral award

AWARDS, HONORS & RECOGNITIONS

2023	Friedman Brain Institute Scholar Award
2021 – 2022	Organizing Committee Albert White Matter Research Institute Meeting
2021	Scientific Advisory Board Albert White Matter Research Institute
2021 – 2023	Chair, Vascular Cognitive Disorders PIA International Society to Advance Alzheimer's Research and Treatment
2023 –	Chair, Vascular Cognitive Impairment Modeling Workgroup, Alz Association
2019 – 2021	Vice Chair, Vascular Cognitive Disorders PIA International Society to Advance Alzheimer's Research and Treatment
2019	New Vision Award Charleston Conference on Alzheimer's Disease
2017	Friday Harbor Genetics of Cognitive Aging Workshop Scholar
2017	Advanced Training in Clinical Research Scholar University of California San Francisco
2016 – 2018	Clinical Research Training Fellowship in Alzheimer's Disease American Academy of Neurology and Allergan Foundation
2015	Best Research Poster UCLA Neuroscience Trainee Annual Meeting
2014	Best Clinical Poster UCLA Neuroscience Trainee Annual Meeting
2013	Records Stroke Response Time, "Door to Needle Time" UCLA Stroke Neurology
2008	Carolyn L. Kuckein Research Scholarship Alpha Omega Alpha
2004 – 2008	Medical Research Council (MRC) Doctor of Philosophy Scholarship
2004 – 2007	Northwick Park Institute for Medical Research Scholarship (NPIMR)

2003 Royal Society Student Scholarship

2002 Columbia University Departmental Honors Nomination

PUBLICATIONS

*Indicates corresponding authorship

Papers under review, in revision, or in press:

- 72. Gupta A, Pires PW, Barone FC, Billinger SA, Carmichael ST, Cortes CJ, Daneman R, Hu X, Kaufer D, Levendovszky SR, Sorond FA, Stillman CM, Tarantini S, Wilcock DM, Williamson JD, Yabluchanskiy A, **Elahi FM** & Zuloaga KL. From Dark Horse to Front-Runner: Vascular Contributions to Brain Health. Proceedings of the 2022 Annual Workshop of the Albert Research Institute for White Matter and Cognition. <u>GeroScience</u> accepted.
- 71. Hainsworth AH, Arancio O, **Elahi FM**, Isaacs JD & Cheng F. PDE5 inhibitor drugs for use in dementia? <u>Alzheimer's & Dementia: Translational Research and Clinical Interventions</u> in press.
- 70. Graff RE, Swinnerton K, Ackley SF, Ospina-Romero M, Zimmerman SC, Wang J, Buto P, Chen DM, Nierenberg JL, **Elahi FM**, Lu, KP, Witte JS, Glymour MM. Evaluation of Polygenic Risk Scores for a Possible Inverse Genetic Basis of the Inverse Association Between Cancer and Cognitive Decline. *Alzheimer's & Dementia in revision*.
- 69. Meschia JF, Worrall BB, **Elahi FM**, Ross OA, Wang MM, Goldstein ED, Rost NS, Majersik JJ, Gutierrez J. Management of inherited CNS small vessel diseases: the CADASIL example. <u>American Heart Association Scientific Statement</u> - in press.
- 68. Torres-Espin A, Radabaugh H, Harvey D, Chou A, Lindberg C, Rivera-Contreras W, Casaletto KC, Goldberger L, Staffaroni AM, Maillard P, Miller BL, DeCarli C, Hinman JD, Ferguson AR, Kramer JH, Elahi FM*. Sexually dimorphic differences in angiogenesis markers predict brain aging trajectories. bioRxiv; Science Translational Medicine in revision.
 DOI: https://doi.org/10.1101/2023.07.16.549192.
- 67. Cosima Oertel F, Younes K, Cobigo Y, Keihani A, Fonseca C, Bennett DJ, Abdelhak A, Saias A, Condor Montes S, Chen RY, Cordano C, Ward M, Casaletto K, Kramer JH, Rosen HJ, Miller BL, Green AJ & **Elahi FM***. Retinal changes predict cognitive decline in progranulin haploinsufficient frontotemporal dementia. <u>Science Translational Medicine</u> in revision.

2023

- 67. **Elahi FM,** Castellano JM, Goate AM. Advances in neurodegenerative disease research: Setting the stage for new therapeutics. *The Frontiers of Medical Research: Brain Science* (Science/AAAS, Washington, DC).
- 66. Karvelas K & **Elahi FM.** White Matter Hyperintensities: Complex Predictor of Complex Outcomes. <u>Journal of the American Heart Association</u>. 2023;0:e030351.

DOI: https://doi.org/10.1161/JAHA.123.030351

PMID: 37349890

65. Anisetti B, Greco E., Stojadinovic E, Sakusic A, Badi MK, Lin MP, Chiang C, Liu MD, **Elahi FM**, Goldstein E, Worrall B, Petrosian D, Ross O, Meschia JF. Novel Grading System for CADASIL Severity: A Multicenter Cross-sectional Study. <u>Cerebral Circulation - Cognition and Behavior</u>. 2023; 5:100170

DOI: https://doi.org/10.1016/j.cccb.2023.100170

64. **Elahi FM**, Alladi S, Black SE, Claassen JAHR, DeCarli C, Hughes TM, Moonen J, Pajewski NM, Price BR, Satizabal C, Shaaban CE, Silva NCBS, Snyder HM, Sveikata L, Williamson JD, Wolters FJ, Hainsworth AH. Clinical trials in vascular cognitive impairment following SPRINT-MIND: An international perspective. *Cell Reports Medicine*. 2023; 4(6):101089.

DOI: https://doi.org/10.1016/j.xcrm.2023.101089

PMID: 37343515

63. **Elahi FM**, Wang M, Meschia J. Cerebral small vessel disease (CSVD)-related dementia: more questions than answers. *Stroke*, 2023; 54:648–660.

DOI: https://doi.org/10.1161/STROKEAHA.122.038265

PMID: 36848423

62. Roseborough AD, Myers SJ, Khazee R, Zhu Y, Zhao L, Iorio E, **Elahi FM,** Pasternak SH, Whitehead SN. Plasma derived extracellular vesicle biomarkers of microglia activation in an experimental stroke model. *Journal of Neuroinflammation*, 2023; 20.

DOI: https://doi.org/10.1186/s12974-023-02708-x

PMID: 36721258

61. Snyder A, Grant H, Chou A, Lindbergh CA, Kramer JH, Miller BL, **Elahi FM***. Immune cell counts in cerebrospinal fluid predict cognitive function in aging and neurodegenerative disease. Alzheimer's & Dementia, 2023; 1-11.

DOI: https://doi.org/10.1002/alz.12956

PMID: 36791265

2022

60. Piehl N, Olst LV, Ramakrishnan A, Teregulova V, Simonton B, Zhang Z, Tapp E, Channappa D, Oh H, Losada PM, Rutledge J, Trelle AN, Mormino EC, **Elahi FM**, Galasko DR, Henderson VW, Wagner AD, Wyss-Coray T, Gate D. Cerebrospinal fluid immune dysregulation during healthy brain aging and cognitive impairment. *Cell* 185, 5028–5039.

DOI: https://doi.org/10.1016/j.cell.2022.11.019

PMID: 36516855

59. Abdelhak A, Solomon I, Montes SC, Saias A, Cordano C, Asken B, Fonseca C, Cosima Oertel F, Arfanakis K, Staffaroni AM, Kramer JH, Geshwind M, Miller BL, **Elahi FM*** & Green AJ. Retinal arteriolar parameters as a surrogate marker of intracranial vascular pathology. <u>Alzheimer's & Dementia</u>, 14:e12338.

DOI: https://doi.org/10.1002/dad2.12338

PMID: 35814617

58. Abdelhak A, Cordano C, Boscardin WJ, Caverzasi E, Kuhle J, Chan B, Gelfand JM, Yiu HH, Oertel FC, Beaudry RA, Condor Montes S, Oksenberg JR, Lario Lago A, Boxer A, Rojas-Martinez JC, **Elahi FM**, Chan JR & Green AJ. Plasma neurofilament light chain levels suggest neuroaxonal stability following therapeutic remyelination in people with multiple sclerosis. <u>Journal of Neurology. Neurosurgery & Psychiatry</u>, Jun 16; jnnp-2022-329221.

DOI: https://doi.org/10.1136/jnnp-2022-329221

PMID: 35710320

57. Younes K, Borghesani V, Montembeault M, Spina S, Mandelli ML, Welch AE, Weis E, Callahan P, **Elahi FM**, Hua AY, Perry DC, Karydas A, Geschwind D, Huang E, Grinberg LT, Kramer JH, Boxer AL, Rabinovici GD, Rosen HJ, Seeley WW, Miller ZA, Miller BL, Sturm VE, Rankin KP & Luisa Gorno-Tempini M. Right temporal lobe and socioemotional semantics: semantic behavioral variant frontotemporal dementia. *Brain, Jun 22;awac217*.

DOI: https://doi.org/10.1093/brain/awac217

PMID: 35731122

56. Sexton CE, Anstey KJ, Baldacci F, Barnum CJ, Barron AM, Blennow K, Brodaty H, Burnham S, **Elahi FM**, Götz J, Jeon YH, Koronyo-Hamaoui M, Landau SM, Lautenschlager NT, Laws SM, Lipnicki

DM, Lu H, Masters CL, Moyle W, Nakamura A, Pasinetti GM, Rao N, Rowe C, Sachdev PS, Schofield PR, Sigurdsson EM, Smith K, Srikanth V, Szoeke C, Tansey MG, Whitmer R, Wilcock D, Wong TY, Bain LJ & Carrillo MC. Alzheimer's disease research progress in Australia: The Alzheimer's Association International Conference Satellite Symposium in Sydney. <u>Alzheimer's & Dementia</u>, Jan;18(1):178-190.

DOI: https://doi.org/10.1002/alz.12380

PMID: 34058063

55. Whitehead SN, Bruno A, Burns JM, Carmichael ST, Csiszar A, Edwards JD, **Elahi FM**, Faraco G, Gould DB, Gustafson DR, Hachinski V, Rosenberg G, Sorond FA, Shih AY, Tse KH, Ungvari Z, Wilcock DM, Zuloaga KL & Barone FC. Expanding the horizon of research into the pathogenesis of the white matter diseases: Proceedings of the 2021 Annual Workshop of the Albert Research Institute for White Matter and Cognition. *Geroscience, Feb;44(1):25-37*.

DOI: https://doi.org/10.1007/s11357-021-00461-8

PMID: 34606040

54. Asken BM, VandeVrede L, Rojas JC, Fonseca C, Staffaroni AM, **Elahi FM**, Lindbergh CA, Apple AC, You M, Weiner-Light S, Brathaban N, Fernandes N, Boxer AL, Miller BL, Rosen HJ, Kramer JH & Casaletto KB. Lower White Matter Volume and Worse Executive Functioning Reflected in Higher Levels of Plasma GFAP among Older Adults with and Without Cognitive Impairment. *Journal of the International Neuropsychological Society, Jul;28(6):588-599.*

DOI: https://doi.org/10.1017/S1355617721000813

PMID: 34158138

2021

53. **Elahi FM***, Ashimatey BS, Bennett DJ, Jiang X, Walters SM, La Joie R, Wolf A, Cobigo Y, Staffaroni AM, Rosen HJ, Miller BL, Rabinovici GD, Kramer, JH, Green AJ & Kashani AH. Retinal imaging demonstrates reduced capillary density in clinically unimpaired APOE4 gene carriers. *Alzheimer's & Dementia, May 11;13(1):e12181*.

DOI: https://doi.org/10.1002/dad2.12181

PMID: 34013017

52. **Elahi FM***, Harvey D, Altendahl M, Casaletto KB, Staffaroni AM, Maillard P, Hinman JD, Miller BL, DeCarli C, Kramer JH & Goetzl EJ. Elevated complement mediator levels in endothelial-derived plasma exosomes implicate endothelial innate inflammation in diminished brain function of aging humans. *Scientific Reports*, 11, 16198.

DOI: https://doi.org/10.1038/s41598-021-91759-2

PMID: 34376699

51. Lindbergh CA, Asken BM, Casaletto KB, **Elahi FM**, Goldberger LA, Fonseca C, You M, Apple AC, Staffaroni AM, Fitch R, Rivera Contreras W, Wang P, Karydas A, Kramer JH; Hillblom Aging Network. Interbatch Reliability of Blood-Based Cytokine and Chemokine Measurements in Community-Dwelling Older Adults: A Cross-Sectional Study. <u>Journals of Gerontology Series A</u> Biological Sciences and Medical Sciences, Oct 13;76(11):1954-1961.

DOI: https://doi.org/10.1093/gerona/glab162

PMID: 34110415

50. Hainsworth AH, **Elahi FM** & Corriveau RA. An introduction to therapeutic approaches to vascular cognitive impairment. <u>Cerebral Circulation – Cognition and Behavior</u>, 2:100033.

DOI: https://doi.org/10.1016/j.cccb.2021.100033

PMID: 34950896

49. Pajewski NM, **Elahi FM**, Tamura MK, Hinman JD, Nasrallah IM, Ix JH, Miller LM, Launer LJ, Wright CB, Supiano MA, Lerner AJ, Sudduth TL, Killeen AA, Cheung AK, Reboussin DM, Wilcock DM & Williamson JD. Plasma amyloid beta, neurofilament light chain, and total tau in the Systolic Blood Pressure Intervention Trial (SPRINT). *Alzheimer's & Dementia*, Aug;18(8):1472-1483.

DOI: https://doi.org/10.1002/alz.12496

48. Memel M, Staffaroni AM, Cobigo Y, Casaletto KB, Fonseca C, Bettcher BM, Yassa MA, **Elahi FM**, Wolf A, Rosen HJ & Kramer JH. APOE moderates the effect of hippocampal blood flow on memory pattern separation in clinically normal older adults. 2021. <u>Hippocampus</u>, Aug;31(8):845-85.

DOI: https://doi.org/10.1002/hipo.23327

PMID: 33835624

47. Wilcock D, Jicha G, Blacker D, Albert MS, D'Orazio LM, **Elahi FM**, Fornage M, Hinman JD, Knoefel J, Kramer J, Kryscio RJ, Lamar M, Moghekar A, Prestopnik J, Ringman JM, Rosenberg G, Sagare A, Satizabal CL, Schneider J, Seshadri S, Sur S, Tracy RP, Yasar S, Williams V, Singh H, Mazina L, Helmer KG, Corriveau RA, Schwab K, Kivisäkk P, Greenberg SM; MarkVCID Consortium. MarkVCID cerebral small vessel consortium: I. Enrollment, clinical, fluid protocols. <u>Alzheimer's & Dementia</u>, Apr;17(4):704-715.

DOI: https://doi.org/10.1002/alz.12215

PMID: 33480172

46. Kaneko N, Satta S, Komuro Y, Muthukrishnan SD, Kakarla V, Guo L, An J, **Elahi FM**, Kornblum HI, Liebeskind DS, Hsiai T & Hinman JD. Flow-Mediated Susceptibility and Molecular Response of Cerebral Endothelia to SARS-CoV-2 Infection. <u>Stroke</u>, Jan;52(1):260-270.

DOI: https://doi.org/10.1161/STROKEAHA.120.032764

PMID: 33161843

45. Ackley SF, **Elahi FM** & Glymour MM. Instrumental variable meta-analysis of aggregated randomized drug trial data for evaluating proposed target mechanisms. <u>The BMJ</u>, Feb 25;372:n346.

DOI: https://doi.org/10.1136/bmj.n346

PMID: 33632740

44. Ackley SF, Zimmerman SC, Brenowitz WD, Tchetgen EJ, Gold AL, Manly JJ, Mayeda ER, Filshtein TJ, Power MC, **Elahi FM**, Brickman AM & Glymour MM. Effect of reductions in amyloid levels on cognitive change in randomized trials: instrumental variable meta-analysis. <u>The BMJ</u>, Feb 25;372:n156.

DOI: https://doi.org/10.1136/bmj.n156

PMID: 33632704

43. Kakarla V, Kaneko N, Nour M, Khatibi K, **Elahi FM**, Liebeskind DS & Hinman JD. Pathophysiologic mechanisms of cerebral endotheliopathy and stroke due to Sars-CoV-2. <u>Journal of Cerebral Blood Flow & Metabolism</u>, Jun;41(6):1179-1192.

DOI: https://doi.org/10.1177/0271678X20985666

PMID: 33530831

42. Asken BM, **Elahi FM**, La Joie R, Strom A, Staffaroni AM, Lindbergh CA, Apple AC, You M, Weiner-Light S, Brathaban N, Fernandes N, Karydas A, Wang P, Rojas JC, Boxer AL, Miller BL, Rabinovici GD, Kramer JH & Casaletto KB. Plasma glial fibrillary acidic protein (GFAP) levels differ along the spectra of amyloid burden and clinical disease stage. *Journal of Alzheimer's Disease*, 80(1):471-474.

DOI: https://doi.org/10.3233/JAD-200755

PMID: 33612550

2020

41. **Elahi FM***, Casaletto KB, La Joie R, Walters SM, Danielle Harvey, Wolf A, Edwards L, Rivera-Contreras W, Karydas A, Cobigo Y, Rosen HJ, DeCarli C, Miller BL, Rabinovici GD & Kramer JH. Plasma biomarkers of astrocytic and neuronal dysfunction in early and late onset Alzheimer's disease. *Alzheimer's and Dementia, Apr;*16(4):681-695.

DOI: https://doi.org/10.1016/j.jalz.2019.09.004

40. **Elahi FM***, Farwell GD, Nolta JA & Anderson JD. Preclinical Translation of Exosomes Derived from Mesenchymal Stem/Stromal Cells. *Stem Cells*, *Jan;38(1):15-2*.

DOI: https://doi.org/10.1002/stem.3061

PMID: 31381842

39. Abner EL, **Elahi FM**, Jicha GA, Mustapic M, Al-Janabi O, Kramer JH, Kapogiannis D & Goetzl EJ. Endothelial-derived plasma exosome proteins in Alzheimer's disease angiopathy. <u>The FASEB Journal</u>, Apr;34(4):5967-5974.

DOI: https://doi.org/10.1096/fj.202000034r

PMID: 32157747

38. Hiramoto JS, **Elahi FM**, Gasper WJ, Reilly LM, Chuter TA & Goetzl EJ. Acute Insulin Resistance and Rapid Alterations in Neuronal Derived Blood Exosome Concentration After Branched Endovascular Aortic Aneurysm Repair. <u>European Journal of Vascular and Endovascular Surgery</u>, Mar;59(3):457-463.

DOI: https://doi.org/10.1016/j.ejvs.2019.10.007

PMID: 31866237

37. Albi E, Alessenko AV, **Elahi FM** & Ledesma MD. Editorial: Lipids in the Brain. *Frontiers in Neurology. Jul 17;11:712*.

DOI: https://doi.org/10.3389/fneur.2020.00712

PMID: 32765414

36. Altendahl M, Cotter DL, Staffaroni AM, Wolf A, Mumford P, Cobigo Y, Casaletto K, **Elahi FM**, Ruoff L, Javed S, Bettcher BM, Fox E, You M, Saloner R, Neylan TC, Kramer JH & Walsh CM. REM sleep is associated with white matter integrity in cognitively healthy, older adults. *PLOS One, Jul 9;15(7):e0235395*.

DOI: https://doi.org/10.1371/journal.pone.0235395

PMID: 32645032

35. Hammond TC, Xing X, Wang C, Ma D, Nho K, Crane PK, **Elahi FM**, Ziegler DA, Liang G, Cheng Q, Yanckello LM, Jacobs N & Lin AL. **β**-amyloid and tau drive early Alzheimer's disease decline while glucose hypometabolism drives late decline. <u>Communications Biology</u>, Jul 6;3(1):352.

DOI: https://doi.org/10.1038/s42003-020-1079-x

PMID: 32632135

34. Cotter DL, Walters SM, Fonseca C, Wolf A, Cobigo Y, Fox EC, You MY, Altendahl M, Djukic N, Staffaroni AM, **Elahi FM**, Kramer JH, Casaletto KB; Hillblom Aging Network. Aging and Positive Mood: Longitudinal Neurobiological and Cognitive Correlates. <u>American Journal of Geriatric Psychiatry</u>, Sep;28(9):946-956.

DOI: https://doi.org/10.1016/j.jagp.2020.05.002

PMID: 32527600

33. Baldacci F, Mazzucchi S, Della Vecchia A, Giampietri L, Giannini N, Koronyo-Hamaoui M, Ceravolo R, Siciliano G, Bonuccelli U, **Elahi FM**, Vergallo A, Lista S, Giorgi FS & Hampel H. The path to biomarker-based diagnostic criteria for the spectrum of neurodegenerative diseases. *Expert Review of Molecular Diagnostics*, Apr;20(4):421-441.

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32. Altendahl M, Maillard P, Harvey D, Cottera D, Walters S, Wolf A, Singh B, Kakarla V, Azizkhanian I, Sheth SA, Xiao G, Fox E, You M, Leng M, Elashoff D, Kramer JHH, Decarli C, **Elahi FM*** & Hinman JD*. An IL-18-centered inflammatory network as a biomarker for cerebral white matter injury. *PLOS One, Jan 24;15(1):e0227835*.

DOI: https://doi.org/10.1371/journal.pone.0227835

31. Gate D, Saligrama N, Leventhal O, Yang AC, Middeldorp J, Chen K, Lehallier B, Channappa D, De Los Santos M, McBride A, Pluvinage J, **Elahi FM**, Tam GK, Kim Y, Greicius M, Wagner AD, Galasko D, Davis MM & Wyss-Coray T. Clonally expanded CD8 T cells patrol Alzheimer's cerebrospinal fluid. *Nature, Jan;577(7790):399-404*.

DOI: https://doi.org/10.1038/s41586-019-1895-7

PMID: 31915375

30. Lindbergh CA, Casaletto KB, Staffaroni AM, La Joie R, Iaccarino L, Edwards L, Tsoy E, **Elahi FM**, Walters SM, Cotter D, You M, Apple AC, Asken B, Neuhaus J, Rexach JE, Wojta KJ, Rabinovici G & Kramer JH. Sex-related differences in the relationship between β-amyloid and cognitive trajectories in older adults. <u>Neuropsychology</u>, Nov;34(8):835-850.

DOI: https://doi.org/10.1037/neu0000696

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29. Lindbergh CA, Walker N, La Joie R, Weiner-Light S, Staffaroni AM, Casaletto KB, **Elahi FM**, Walters SM, You M, Cotter D, Asken B, Apple AC, Tsoy E, Neuhaus J, Fonseca C, Wolf A, Cobigo Y, Rosen H & Kramer JH. Worth the wait: Delayed recall after 1 week predicts cognitive and medial temporal lobe trajectories in older adults. <u>Journal of the International Neuropsychological Society</u>, Apr;27(4):382-388.

DOI: https://doi.org/10.1017/S1355617720001009

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28. Lindbergh CA, Casalettoa KB, Staffaronia AM, **Elahi FM**, Walters SM, You M, Neuhaus J, Rivera-Contreras W, Karydasa A, Brown J, Wolf A, Rosen H, Cobigo Y & Kramer JH. Systemic Tumor Necrosis Factor-Alpha Trajectories Relate to Brain Health in Typically Aging Older Adults. *Journal of Gerontology*, *Jul 13;75(8):1558-1565*.

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PMID: 31549145

2019

27. Bennett DJ, Kaakour H, Laughlin A, **Elahi FM** & Kashani AH. Retinal imaging and neurodegenerative disease. *Retina Specialist*.

DOI:

https://www.retina-specialist.com/article/retinal-imaging-and-neurodegenerative-disease

26. Goetzl EJ, Ledreux A, Granholm A, **Elahi FM**, Goetzl L, Hiramoto J & Kapogiannis D. Neuron-derived exosome proteins elucidate mechanisms of progression from repetitive mild traumatic brain injuries to chronic traumatic encephalopathy. *Front Neuroscience, May* 8:13:452.

DOI: https://doi.org/10.3389/fnins.2019.00452

PMID: 31133789

25. Staffaroni AM, Bajorek L, Casaletto KB, Cobigo Y, Goh SM, Wolf A, Heuer HW, **Elahi FM**, et al. Assessment of executive function declines in pre-symptomatic and mildly symptomatic familial frontotemporal dementia: NIH-EXAMINER as a potential clinical trial endpoint. *Alzheimer's & Dementia, Jan;*16(1):11-21.

DOI: https://doi.org/10.1016/j.jalz.2019.01.012

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24. Casaletto KB, **Elahi FM,** Staffaroni AM, Walters S, Rivera-Contreras W, Wolf A, Dubal DB, Miller BL, Yaffe K & Kramer JH. Cognitive aging is not created equally: differentiating unique cognitive phenotypes in "normal" adults. *Neurobiology of Aging, May;77:13-19*.

DOI: https://doi.org/10.1016/i.neurobiolaging.2019.01.007

PMID: 30772736

23. Filshtein TJ, Brenowitz WD, Mayeda ER, Hohman TJ, Walter S, Jones RN, **Elahi FM** & Glymour MM. Reserve and Alzheimer disease genetic risk: effects on hospitalization and mortality. <u>Alzheimer's & Dementia</u>, Jul;15(7):907-916. DOI: https://doi.org/10.1016/j.jalz.2019.04.005

PMID: 31327391

22. Winston CN, Goetzl EJ, Schwartz JB, **Elahi FM** & Rissman RA. Complement protein levels in plasma astrocyte-derived exosomes are abnormal in conversion from mild cognitive impairment to Alzheimer's disease dementia. <u>Alzheimer's & Dementia</u>, Jan 9;11:61-66.

DOI: https://doi.org/10.1016/j.dadm.2018.11.002

PMID: 31032394

21. Staffaroni AM, Cobigo Y, **Elahi FM**, Casaletto KB, Walters S, Wolf A, Lindbergh CA, Rosen HJ & Kramer JH. A Longitudinal Characterization of Perfusion in the Aging Brain and Associations with Cognition and Neural Structure. <u>Human Brain Mapping</u>, Aug 15;40(12):3522-3533.

DOI: https://doi.org/10.1002/hbm.24613

PMID: 31062904

20. Bettcher BM, Neuhaus J, Wynn MJ, **Elahi FM**, Salonar R, Fitch R, Karydas AM & Kramer JH. Increases in a Pro-Inflammatory Chemokine, MCP-1, Are Related to Decreases in Memory Over Time. *Frontiers in Aging Neuroscience, Feb 13;11:25.*

DOI: https://doi.org/10.3389/fnagi.2019.00025

PMID: 30814948

19. Staffaroni AM, Ljubenkov P, Cobigo Y, Kornak J, Datta S, Marx G, **Elahi FM**, Boxer AL, Olney N, Walters S, Chiang K, Knopman DS, Dickerson BC, Boeve BF, Gorno-Tempini ML, Spina S, Grinberg L, Seeley WW, Miller BL, Kramer JH & Rosen HJ. Longitudinal Multimodal Imaging and Clinical Endpoints for Frontotemporal Dementia Clinical Trials. <u>Brain</u>, Feb 1:142(2):443-459.

DOI: https://doi.org/10.1093/brain/awy319

PMID: 30698757

18. Broce IJ, Tan CH, Fan CC, Jansen I, Savage JE, Witoelar A, Wen N, Hess CP, Dillon WP, Glastonbury CM, Glymour MM, Yokoyama JS, **Elahi FM**, Rabinovici GD, Miller BL, Mormino EC, Sperling RA, Bennett DA, McEvoy LK, Brewer JB, Feldman HH, Hyman BT, Pericak-Vance M, Haines JL, Farrer LA, Mayeux R, Schellenberg GS, Yaffe K, Sugrue LP, Dale AM, Posthuma D, Andreassen OA, Karch CM & Desikan RS. Dissecting the genetic relationship between cardiovascular risk factors and Alzheimer's disease. <u>Acta Neuropathologica</u>, Feb;137(2):209-226.

DOI: https://doi.org/10.1007/s00401-018-1928-6

PMID: 30413934

2018

17. **Elahi FM***, Casaletto KB, Altendahl M, Staffaroni AM, Fletcher E, Filshtein TJ, Glymour MM, Miller BL, Hinman JH, DeCarli C, Goetzl EJ & Kramer JH. "Liquid Biopsy" of White Matter Hyperintensity in Functionally Normal Elders. *Frontiers in Aging Neuroscience*, Nov 9;10:343.

DOI: https://doi.org/10.3389/fnagi.2018.00343

PMID: 30483114

16. Goetzl EJ, **Elahi FM**, Mustapic M, Kapogiannis D, Pryhoda M, Gilmore A, Gorgens KA, Davidson B, Granholm AC & Ledreux A. Altered levels of plasma neuron-derived exosomes and their cargo proteins characterize acute and repetitive mild traumatic brain injury. *The FASEB Journal*, *Apr;33*(4):5082-5088.

DOI: https://doi.org/10.1096/fj.201802319R

PMID: 30605353

15. Winston C, Goetzl EJ, Schwartz JB, **Elahi FM** & Rissman R. Complement protein levels in plasma astrocyte-derived exosomes are abnormal in conversion from mild cognitive impairment to Alzheimer disease dementia. *Alzheimer's & Dementia, Jan 9;11:61-66.*

DOI: https://doi.org/10.1016/j.dadm.2018.11.002

14. Viodé A, Fournier C, Camuzat A, Fenaille F, Latouche M, **Elahi FM**, Ber IL, Junot C, Lamari F, Anquetil V & Becher F. New Antibody-Free Mass Spectrometry-Based Quantification Reveals That C9ORF72 Long Protein Isoform Is Reduced in the Frontal Cortex of Hexanucleotide-Repeat Expansion Carriers. *Frontiers in Neuroscience*, Aug 28;12:589.

DOI: https://doi.org/10.3389/fnins.2018.00589

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13. Staffaroni AM, Tosun D, Lin J, **Elahi FM**, Casaletto KB, Wynn MJ, Patel N, Neuhaus J, Walters SM, Epel ES, Blackburn EH & Kramer JH. Telomere attrition is associated with declines in medial temporal lobe volume and white matter microstructure in functionally independent older adults. *Neurobiology of Aging, Sep;*69:68-75.

DOI: https://doi.org/10.1016/j.neurobiolaging.2018.04.021

PMID: 29859365

12. Casaletto KB, Staffaroni AM, **Elahi FM**, Fox E, Crittenden P, You M, Neuhaus J, Bettcher B, Yaffe K & Kramer JH. Perceived stress exacerbates age-related cytokine markers of macrophage inflammation in cognitively normal older adults. <u>American Journal of Geriatric Psychiatry</u>, Sep;26(9):952-963.

DOI: https://doi.org/10.1016/j.jagp.2018.05.004

PMID: 30017239

11. Casaletto KB, **Elahi FM**, Fitch R, Walters S, Fox E, Staffaroni A, Bettcher B, Zetterberg H, Karydas A, Rojas J, Boxer A & Kramer J. A Comparison of Biofluid Cytokine Markers across Platform Technologies: Correspondence or Divergence? <u>Cytokine</u>, Nov;111:481-489.

DOI: https://doi.org/10.1016/j.cvto.2018.05.032

PMID: 29908923

10. Staffaroni AM, Brown JA, **Elahi FM**, Casaletto KB, Deng J, Neuhaus J, Mumford P, Saloner R, Karydas A, Coppola G, Rosen HJ, Miller BL, Seeley WW & Kramer JH. The Longitudinal Trajectory of Default Mode Network Connectivity in Healthy Older Adults Varies as a Function of Age and is Associated with Changes in Episodic Memory. <u>Journal of Neuroscience</u>, Mar 14;38(11):2809-2817.

DOI: https://doi.org/10.1523/JNEUROSCI.3067-17.2018

PMID: 29440553

2017

9. **Elahi FM*** & Miller BL. A clinico-pathological approach to the diagnosis of dementia. <u>Nature</u> <u>Reviews Neurology</u>, Aug;13(8):457-476.

DOI: https://doi.org/10.1038/nrneurol.2017.96

PMID: 28708131

Included on reading list for Neurology Board Exams for the past 5 years

8. **Elahi FM***, Marx G, Cobigo Y, Staffaroni AM, Kornak J, Tosun D, Boxer AL, Kramer JH, Miller BL & Rosen HJ. Longitudinal white matter change in frontotemporal dementia subtypes and sporadic late onset Alzheimer's disease. *NeuroImage: Clinical, Sep 14;16:595-603*.

DOI: https://doi.org/10.1016/j.nicl.2017.09.007

PMID: 28975068

7. Casaletto KB, **Elahi FM**, Bettcher BM, Neuhaus J, Bendlin BB, Asthana S, Johnson SC, Yaffe K, Carlsson C, Blennow K, Zetterberg H & Kramer JH. Neurogranin, a synaptic protein, is associated with memory independent of Alzheimer biomarkers. *Neurology. Oct* 24;89(17):1782-1788.

DOI: https://doi.org/10.1212/WNL.000000000004569

6. Staffaroni AM, **Elahi FM**, McDermott D, Marton K, Karageorgiou E, Sacco S, Paoletti M, Caverzasi E, Hess CP, Rosen HJ & Geschwind MD. Neuroimaging in Dementia. <u>Seminars in Neurology</u>. Oct;37(5):510-537.

DOI: https://doi.org/10.1055/s-0037-1608808

PMID: 29207412

2015

5. Kleinman JT, **Elahi FM**, Ali LK & Hinman JD. Locked Out: Basilar Dependent Cerebral Circulation in the Setting of Acute Stroke. *Journal of Neurological Disorders*, 2015, 3:1.

DOI: https://doi.org/10.4172/2329-6895.1000i108

2011

4. During EH, Osorio RS, **Elahi FM**, Mosconi L & De Leon MJ. The concept of FDG-PET endophenotype in Alzheimer's disease. *Neurological Sciences*, *Aug;32(4):559-69*.

DOI: https://doi.org/10.1007/s10072-011-0633-1

PMID: 21630036

3. During EH, **Elahi FM**, Taïeb O, Moro MR & Baubet T. A critical review of dissociative trance and possession disorders: etiological, diagnostic, therapeutic and nosological issues. <u>Canadian Journal of Psychiatry</u>, Apr;56(4):235-42.

DOI: https://doi.org/10.1177/070674371105600407

PMID: 21507280

2007

2. Jafari M, **Elahi FM**, Ozyurt S & Wrigley T. Fundamentals of the Stem Cell Debate - The Scientific, Religious, Ethical, and Political Issues. *In:* Renwick Monroe K, Miller RB, Tobis JS (Eds). *University of California Press*

2006

1. Vernes SC, **Elahi FM**, Coventry JA, Kenny N, Coupe AM, Bird LE, Davies KE & Fisher SE. Functional genetic analysis of mutations implicated in a human speech and language disorder. <u>Human Molecular Genetics</u>, Nov 1;15(21):3154-67.

DOI: https://doi.org/10.1093/hmg/ddl392

INVITED	Role	
2024	Mayo Clinic Jacksonville Neuroscience Research Seminar March 1, Jacksonville, FL	Invited Speaker
	Weill Cornell Medicine Appel Diversity and Community Initiative Seminar Series April 17, New York, NY	Invited Speaker
2023	Icahn School of Medicine at Mount Sinai Multiple Sclerosis Fellows Lecture December 11, New York, NY	Invited Speaker
	Grand Rounds, Mount Sinai Health System Neurology Department November 11, New York, NY	Invited Speaker
	International Society for Vascular Behavioural and Cognitive Disorders Conference (VasCog) VasCog Plenary Session Debate September 13-16, Gothenburg, Sweden	Invited Debater
	International Society for Vascular Behavioural and Cognitive	Invited Speaker

Disorders Conference (VasCog)

September 13-16, Gothenburg, Sweden

Alzheimer's Association International Conference

Session Co-Chair & Speaker

Perspectives Session

Closing the sex/gender gap in dementia: homing in on the vasculature

July 16-20, Amsterdam, Netherlands

Alzheimer's Association International Conference

Invited Speaker

Perspectives Session

Emerging biomarkers for common co-pathologies

July 16-20, Amsterdam, Netherlands

Alzheimer's Association International Conference

Invited Speaker

Panelist

Early biomarkers of vascular brain dysfunction

July 16-20, Amsterdam, Netherlands

Alzheimer's Association International Conference **ISTAART Immersives Workshop**

Co-Organizer & Co-Chair

Evaluating the human vasculature for VCID

July 14-15, Amsterdam, Netherlands

Aspen Ideas Festival New Paths to Treat and Prevent Brain Disease

June 25

Aspen Ideas: Health Invited Speaker

New Era for Alzheimer's Disease?

June 24

United Leukodystrophy Foundation Family Conference

Invited Speaker

CADASIL-centered modeling of vascular leukoencephalopathy

June 22, 2023, Itasca, IL

Alzheimer's Association ISTAART Webinar

Invited Speaker

Genetic entries into VCID pathobiology

June 13, Virtual

Chan Zuckerberg Initiative (CZI) Neurodegenerative **Challenge Network (NDCN) Annual Meeting**

Panelist

Patient Partnered Collaboration Project Panel Discussion June 7, San Diego, CA

Alzheimer's Disease Research Center Lunch-Talk Series

Invited Speaker

Blood tests for dementia: how use of blood in research is changing diagnosis and care for aging adults

May 23, Virtual Meeting

Sanders-Brown Center Aging Series - Postponed

Invited Speaker

University of Kentucky May 15, Lexington, KY

Aging Conference Series

Invited Speaker

Wake Forest Baptist

April 5, Winston-Salem, NC

Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART) Webinar

Invited Speaker

Disentangling Alzheimer's disease and vascular cognitive impairment through monogenic disorders

February 28, Virtual

Sutter Health Invited Speaker

Neurosciences Grand Rounds

February 23, Virtual

Mount Sinai New York Invited Speaker

Community Presentation

New tools herald a new era in dementia research & care

February 3, Palm Beach Gardens, FL

Icahn School of Medicine at Mount Sinai Invited Speaker

MD/PhD Program - Monthly Speaker Series

January 25, New York, NY

Icahn School of Medicine at Mount Sinai Invited Speaker

Board of Trustees Research Committee

New Tools to End Dementia January 24, New York, NY

2022 **CADASIL Connect Webinar** Invited Speaker

CADASIL Patient-Partnered Therapeutic Discovery Pipeline

November 18, Virtual

University of Connecticut, Mentorship Course Invited Speaker

Career Trajectory Presentation, MD-PhD program

November 17, Virtual

Friedman Brain Institute Webinar

"Biomarkers" of Alzheimer's Disease and Related Dementias: How to Establish an Early Diagnosis

November 9, Virtual

XLVI Annual Congress of the Mexican Academy of Neurology Keynote Speaker

Advances in Vascular Dementia: From Research to Practice

November 3, León, Mexico

Mount Sinai Alzheimer's Disease Research Center Invited Speaker

RADAR Accelerator Meeting

October 27, New York, NY

Neurobiology of Brain Disorders Gordon Research Conference Discussion Leader

Biomarkers: Diagnoses and Theranostics

August 11, Barcelona, Spain

Alzheimer's Association International Conference Co-Chair & Speaker

Real world clinical perspective on PDE5i utility in dementia

August 2, San Diego, CA

Alzheimer's Association International Conference Poster Presenter

Sex modifies the association between hippocampal blood flow and episodic memory in cognitively unimpaired individual

July 31-August 4, San Diego, CA

Alzheimer's Association International Conference

Invited Speaker

Panelist

Think Tank: *Prevention of Dementia by Treating Vascular and Metabolic Disorders* July 29, San Diego, CA

Alzheimer's Association International Conference, **Invited Speaker** Microvascular Dysfunction in VCID: From Bench to Bedside Clinical In Vivo Human Biomarkers July 29, San Diego, CA **Tau Consortium Invited Speaker** Panel Session: Mechanisms and Models July 18, Irving, TX **Buck Institute for Research and Aging Invited Speaker** New Tools for In Vivo Studies of Human Vascular Aging & Vascular Neurodegenerative Disease June 17, Novato, CA **Grand Rounds, UCSF Memory and Aging Center Invited Speaker** June 17, UCSF MAC, San Francisco, CA Albert Research Institute for White Matter and Cognition **Invited Speaker** Endothelial Inflammation and Blood-Brain Barrier Dysfunction in Aging March 28, West Palm Beach, FL Breaking Bias: Moving Forward in Academic Science, **Panelist Engineering and Medicine** February 11, UCSF MAC, San Francisco, CA International Stroke Conference (ISC) Symposium **Invited Speaker** MarkVCID Endothelial Inflammation Biomarkers February 7-9, New Orleans, LA **Hacettepe Neuroscience Institute Invited Speaker** New Tools for Studying Vascular Cognitive Impairment Directly in Humans January 17, Virtual Meeting 6th Annual Hillblom Aging Symposium **Invited Speaker** Angiogenesis and Inflammation, Targetable Pathways in VCID October 27, UCSF MAC, Virtual Meeting International Stroke Conference (ISC) Symposium **Invited Speaker** MarkVCID Biomarkers March 17-19, Virtual Meeting San Francisco Neurological Society Annual Meeting **Invited Speaker** Cerebral Amyloid Angiopathy March 19-20, Virtual Meeting Albert Research Institute on White Matter and Cognition **Invited Speaker** March 4, Virtual Meeting MarkVCID Annual Conference **Invited Speaker** Endothelial inflammation Instrumental Validation Results

2020 Ace Alzheimer Center Barcelona

2021

Invited Speaker

December 15, Barcelona, Spain

February 8-9, Virtual Meeting

Mexican Academy of Neurology Invited Speaker

Endothelial Inflammation in VCID
November 21, Virtual Meeting

AHA-Allen Brain Initiative Collaborative Invited Speaker

Immunomodulation to Promote Cerebrovascular and Cognitive Health – a presentation on CADASIL as a model of VCID

June 1

UCSF Vascular Neurology-Critical Care Fellowship Didactics

Invited Speaker

CADASIL: Model of Sporadic VCID

May 11, UCSF Department of Neurology, San Francisco, CA

MarkVCID Annual Conference

Invited Speaker

March 30-31, Endothelial Inflammation as a Diagnostic Biomarker in VCID

Alzheimer's Disease Research Center External Advisory Board

Invited Speaker

Vascular Biofluid Biomarkers March 2, UCSF, San Francisco, CA

2019

2018

Alzheimer's Association International Conference

Invited Speaker

Vascular Contributions: Adding the "V" to ATN Framework: Plasma Exosome-Based Biomarkers of VCID

September 26, Sydney, Australia

San Francisco Veterans Affairs

Invited Speaker

Biomarkers of CNS Disease June 20, San Francisco, CA

MarkVCID Annual Conference

Invited Speaker

Exosomes for Liquid Biopsy in VCID

June 17, Charlestown, MA

ADC Clinical Core Leaders Meeting

Invited Speaker

Fluid Biomarkers of Cerebrovascular Disease

May 2, Philadelphia, PA

F. Hoffman-La Roche

Invited Speaker

A Biomarker-driven Shift of therapeutic paradigms: Immuno-vascular contributions to neurodegenerative disease

April 4, Basel, Switzerland

Gladstone Neurological Institute

Invited Speaker

RIP: Biomarkers of Cerebrovascular Degeneration: A molecular approach to understanding vascular contributions to neurodegenerative disease March 28, Gladstone Institutes, San Francisco, CA

Grand Rounds Cedars Sinai Medical Center

Invited Speaker

A molecular approach to understanding vascular contributions to neurodegenerative disease

January 1, Depts. of Neurology and Neurosurgery, Los Angeles, CA

3rd Annual Hillblom Aging Symposium

Invited Speaker

In Search of Accuracy in Biomarkers of Cerebral Small Vessel Disease October 17, UCSF MAC, San Francisco, CA

Seneca Women, Metropolitan Museum of Art

Invited Panelist

Fast Forward Women's Innovation Forum

September 29, The Metropolitan Museum of Art, New York, NY

Knight ADRC Lecture, University of Washington School of Medicine Invited Speaker

Vascular Neurodegenerative Pathways and Biomarkers July 31, UW School of Medicine, Seattle, WA

Alzheimer's Association International Conference

Invited Speaker

Endothelial-Derived Exosome Biomarkers Suggest Activation of Innate Immunity in Subclinical Cerebrovascular Disease

July 20-26, McCormick Place, Chicago, IL

International Vascular Biology Meeting

Project Lead & Presenter

Endothelial-Derived Exosome Biomarkers Suggest Activation of Innate Immunity in Subclinical Cerebrovascular Disease

June 3-7, Helsinki, Finland

Columbia University Department of Neurology Special Lecture

Invited Speaker

Fluid Biomarkers in Neurodegenerative Disorders

April 30, Columbia University, New York, NY

American Academy of Neurology Annual Meeting

Speaker

Platform Presentation: Novel Biomarkers in Aging & Dementia April 27, Los Angeles, CA

American Academy of Neurology Annual Meeting

Speaker

Data Blitz Presentation: Aging & Dementia Discussion Session April 24, Los Angeles, CA

MAC-Pitié-Salpêtrière Inaugural Collaborative Conference

Invited Speaker

Immuno-vascular contributions to neurodegenerative disorders April 9, San Francisco, CA

Special Lecture, CAA Research Center

Invited Speaker

Fluid Biomarkers of Vascular Cognitive Impairment in Dementia April 5, Mass General Hospital, Boston, MA

Special Lecture, Departments of Neurology and Neuroscience

Invited Speaker

Vascular Neurodegenerative Pathways and Biomarkers
March 7, Icahn School of Medicine at Mount Sinai, New York, NY

MarkVCID Annual Conference

Invited Speaker

Markers of Endotheliopathy January 22-23, Los Angeles, CA

2017 **2nd Annual Hillblom Aging Symposium**

Invited Speaker

Non-invasive Biomarkers in Aging and Disease States September 26, UCSF MAC, San Francisco, CA

MAC Tuesday Lecture, UCSF

Invited Speaker

Cerebral Small Vessel Disease: Lessons Learned from Autosomal Dominant Diseases and the Retina

March 7, UCSF MAC, San Francisco, CA

2016 Clinicopathological Case Conference, UCSF MAC Conference

Presenter

May 10, San Francisco, CA

American Academy of Neurology (AAN) Annual Meeting

Poster Co-author

Differential longitudinal decline of white matter integrity in frontotemporal lobar degeneration and Alzheimer's disease

April 19, Vancouver, BC, Canada

MAC Tuesday Lecture, UCSF MAC

Invited Speaker

The KE Family: The Story of an Inherited Speech and Language Disorder January 26, San Francisco, CA

2014 Grand Rounds, UCLA

Invited Speaker

VA: Innate Immune Activation and Motor Neuron Disease

Los Angeles, CA

Neurobehavioral Program Didactics for Fellows and Residents

Speaker

Categorization and Diagnostic Challenges: CBS, PSP, MSA

VA Greater Los Angeles, Los Angeles, CA

2013 UCLA Collins Day

Poster Presenter

A case of pediatric chorea-acanthocytosis (ChAC)

UCLA, Los Angeles, CA

UCLA Collins Day

Poster Presenter

A case of steroid responsive encephalopathy: probable primary angiitis of the central nervous system

UCLA, Los Angeles, CA

Neurology Grand Rounds, Olive View Medical Center

Speaker

Neurology: Primary CNS Angiitis

Olive View Medical Center, UCLA, Los Angeles, CA

2012 Alzheimer's Association International Conference

Speaker

The epistatic effect of BDNF and APOE polymorphisms on amyloid-ß deposition in cognitively normal individuals using PiB-PET imaging,

July 14-19, Vancouver, Canada

2009 **39th Annual Meeting of the Society for Neuroscience**

Poster Presenter

Characterization of muscle-specific tyrosine kinase receptor expression in the rat brain

October 17-21, Chicago, IL

2008 Special Lecture, Icahn School of Medicine at Mount Sinai

Invited Speaker

FOXP2 protein interactome investigated via LC/MS-MS

Department of Neuroscience, Icahn School of Medicine at Mount Sinai, New York, NY

14th Annual Student Research Day

Project Lead & Presenter

Molecular mechanisms underlying neuronal MuSK functions and their relationship to memory consolidation

Icahn School of Medicine at Mount Sinai, New York, NY

2006 Guest Lecture, Harvard Medical School

Invited Speaker

FOXP Proteins in Neurodevelopment and Language Acquisition

Harvard Medical School, Boston, MA

36th Annual Meeting of the Society for Neuroscience Project Lead & Presenter The role of FOXP2 dimerization in brain development and language acquisition October 14-18, Atlanta, GA

Keystone Symposia

Project Lead & Presenter

Multi-Protein Complexes Involved in Cell Regulation FOXP2 dimerization regulate its function in transcription August 18-23, Cambridge, United Kingdom

Federation of European Neuroscience Societies

Speaker

Uncovering the impact of FOXP2 protein interactions on brain development and language acquisition
July 8-12, Vienna, Austria

Federation of European Neuroscience Societies

Project Lead & Presenter

Uncovering the impact of FOXP2 protein interactions on brain development and language acquisition.

July 8-12, Vienna, Austria

2005 **Wellcome Trust Centre for Human Genetics** Speaker

In Search of Interactions: Yeast-two hybrid Screen centered around FOXP2

Oxford University, Oxford, United Kingdom

ACADEMIC S	SERVICE	Role
2023	MD-PhD Admissions Committee at the Icahn School of Medicine at Mount Sinai	Committee Member
2023	Utah Center on Aging	External Grant Reviewer
2023	International Society for Vascular Behavioural and Cogn Disorders Conference (VasCog) Inflammation and Other Mechanisms of VCI	itive Session Chair
2023	VasCog, Poster Blitz	Session Co-Chair
2023	TargetALS Annual Meeting	Session Moderator
2022 - pres.	Diverse VCID Consortium Bioflu	uid Biomarkers Project Lead
2022 - pres.	Target ALS	Review Committee Member
2022 - pres.	MarkVCID, Biospecimen Committee	Co-Chair
2022	AAIC, Featured Research Symposium Could PDE5 inhibitors benefit dementia?	Organizer & Chair
2022	European Research Council	External Grant Reviewer
2021 - pres.	Vascular Cognitive Disorders Professional Interest Area Alzheimer's Association International Society to Advance A Treatment	Chair Izheimer's Research and
2021	AAIC, Featured Research Symposium Treating Dementia Through the Vascular Route: Multiple S	Organizer & Chair Shots on Goal
2020	Medical Research Council, United Kingdom	Grant Reviewer
2019 - 2021.	Vascular Cognitive Disorders Professional Interest Area Alzheimer's Association International Society to Advance A Treatment	Vice Chair Izheimer's Research and
2019 - 2021	Alzheimer's Association International Conference (AAIC)	Abstract Reviewer
2019 - pres.	cureCADASIL Scientific Ad	dvisory Committee Member
2019 - pres.	Alzheimer's Research United Kingdom	Grant Reviewer
2019	Frontiers in Neurology: Lipids in the Brain, Special Issue	Guest Editor
2018 - pres.	Immune Activation in CNS Working Group, UCSF MAC	Co-Founder
2018	UCSF MAC Research and Dissemination Committee	Member
2017	Inaugural UCSF MAC - Pitié-Salpêtrière Collaborative Me	eting Co-Organizer
2016 - pres.	Methods in Neuroimaging Journal Club, UCSF MAC	Co-Founder
2016 - pres.	Curriculum Committee, UCSF Behavioral Neurology Train	ning Fellowship Member
REVIEWING	ACTIVITIES	Role
2022 – pres.	Alzheimer's & Dementia	Associate Editor
2022 - pres.	Journal of Cerebral Circulation	Guest Editor

Fluid Biomarkers of VCI

2022 – pres.	Frontiers in Neurology Dementia and Neurodegenerative Diseases	ssociate Editor
2023 – pres.	Nature Medicine	Reviewer
2022 – pres.	JAHA	Reviewer
2021 – pres.	Neurology	Reviewer
2020 – pres.	Brain	Reviewer
2019 – pres.	Nature Reviews Neurology	Reviewer
2019 – pres.	PLoS One	Reviewer
2019 – pres.	Journal of Stroke and Cerebrovascular Disease	Reviewer
2019 – pres.	Brain Imaging and Behavior	Reviewer
2019 – pres.	Human Brain Mapping	Reviewer
2019 – pres.	Journal of Neuroscience	Reviewer
2018 – pres.	Neuroimage Clinical	Reviewer
2018 – pres.	Alzheimer's and Dementia	Reviewer
2018 – pres.	Journal of Alzheimer's Disease	Reviewer
2018 – pres.	Stroke	Reviewer
2018 – pres.	Annals of Neurology	Reviewer
2018 – pres.	Neurobiology of Disease	Reviewer
2017 – pres.	Neurobiology of Aging	Reviewer
2017 – pres.	JAMA Neurology	Reviewer
UNIVERSITY	AND PUBLIC SERVICE	Role
2022 – pres.	Faculty Search Committee Mount Sinai Center for Transformative Disease Modeling, ISMMS	Member
2022 – pres.	Genomics and Genetics Core Mount Sinai Alzheimer's Disease Research Center	Co-Director
2020 – 2022	Biospecimen Committee Division Service, UCSF - MAC	Member
2020	Faculty Search Committee Data Science and Neuroscience, Department of Neurology, UCSF - MAC	Member
2019 – 2022	Department of Neurology Space Committee, UCSF - MAC	Member
2019	Faculty Search Committee Johan Douglas French Alzheimer's Foundation Endowed Professorship, Medicine, UCSF - MAC	Member School of
2018 – 2022	Grant Day Event	Member

Division Service, UCSF - MAC

2018 – 2022	MAC-Pitié-Salpêtrière Biennial Collaborative Conference Collaboration between 2 organizations	Co-Organizer
2018 – 2022	Immune Activation in CNS Working Group UCSF – MAC	Co-Founder and Organizer
PROFESSIO	NAL SOCIETIES & ORGANIZATIONS	Role
2018 - pres.	Biofluid Biomarker Working Group Alzheimer's Disease Centers	Member
2018 - pres.	International Society to Advance Alzheimer's Research a Chair, Vascular Cognitive Disorders PIA (2021 - 2023) Alzheimer's Association	and Treatment Member
2016 - pres.	MarkVCID Consortium	Consortium Member
2014 - pres.	New York Academy of Sciences	Member
2012 - pres.	American Academy of Neurology	Member
2012 - pres.	American Neurological Association	Junior Member
LECTURES &	TEACHING	Role
2023	White Matter Disease/ Leukoencephalopathy ISMMS Neurology Resident Didactic	Lecturer
2023	Frontotemporal Dementias Part 1 ISMMS Neurology Resident Didactic	Lecturer
2023	Frontotemporal Dementias Part 2 ISMMS Neurology Resident Didactic	Lecturer
2020	CADASIL as a Model of Chronic Sporadic VCID to Stroke SUCSF	and Critical Care Lecturer
2019	Mini Symposium on Dementia UCSF Medical School	Co-Leader
2019	White matter degeneration and cognition UCSF MAC	Lecturer
2018	Brain Movement and Behavior UCSF Second Year Medical School Course	Group Leader
2018	White Matter Degeneration and Cognition UCSF Memory and Aging Center	Lecturer
2016 - pres.	Precepting of Medical Students and Residents in Clinic Direct Teaching of Junior Trainees	Teaching
2016 - pres.	Research Coordination and Career Development UCSF MAC	Teaching & Mentorship
2014 - 2015	UCLA Neurology Resident Handbook University of California, Los Angeles	Co-Editor
2014 - 2015	Topics of Neurology UCSF Medical School	Teaching
2012 - 2015	Teaching & Mentorship UCLA Medical School	Teaching

2010 **Department of Neurobiology** Teaching Assistant

ISMMS

2006 **Department of Genetics** Teaching Assistant

Oxford University

2002 **Department of Biology** Laboratory Teaching Assistant

Columbia University

MENTORSHIP

Dates	Name	Position	Mentor Role	Location	Current Position
2023 - pres.	Kayla Elias	Undergraduate Researcher	Primary	ISMMS	-
2023 - pres.	Loyca Jean	Undergraduate Researcher	Primary	ISMMS	-
2023 - pres.	Emma Kornberg	Undergraduate Researcher	Primary	ISMMS	-
2023 - pres.	Lauren Kim	Undergraduate Researcher	Primary	ISMMS	-
2023 - pres.	Jennifer Quisi	Undergraduate Researcher	Primary	ISMMS	-
2023 - pres.	Ruth Axton	CRC	Primary	ISMMS	-
2023 - pres.	Harrison Chan	Research Assistant/ CRC	Primary	ISMMS	-
2023 – pres.	Nikolaos Karvelas, MD	Postdoctoral Scholar	Primary	ISMMS	-
2023 – pres.	Pauline Maciel August, PhD	Postdoctoral Scholar	Primary	ISMMS	-
2023 – pres.	Jeremy Rouanet, BS	MD/PhD Student	F30 Co-Mentor	UC Irvine	-
2022 – pres.	Stephen Fitzsimons, PhD	Postdoctoral Scholar	Primary	ISMMS	-
2022 – pres.	Lisa McDonnell, PhD	Project Scientist/ Lab Manager	Primary	ISMMS	-
2022 – pres.	Ryan Park, BS	Assistant CRC	Primary	UCSF & ISMMS	-
2022 – pres.	Bradley Oh, BS	Research Assistant	Primary	ISMMS	
2022 – pres.	Jonah Keller	Student Volunteer	Primary	Cornell	-
2022 – pres.	Hannah Radabaugh, PhD	Postdoctoral Scholar	Co-Mentor	UCSF	-
2021 – pres.	Scott Treiman	Medical Student	Primary	UCSF	-
2021 – pres.	Connor MacLennan	Undergraduate Researcher	Primary	UCSF & ISMMS	-

2019 – pres.	Daniel Bennett	Medical Student	Primary	San Francisco State University	-
2019 – pres.	Francisco Martinez, MD	Behavioral Neurologist	Co-Mentor	Mexico	-
2022 –2023	Luana Moury, MD	CRC	Primary	ISMMS	-
2021 – 2022	Krystal Belmonte, PhD	Postdoctoral Scholar	Primary	UCSF	Field Scientist, Mol. Devices
2021 – 2022	Emma Iorio, BS	Lab Manager	Primary	UCSF	Research Sci., Ferguson Lab
2021 – 2022	Yasmine Tabdili, BS	Junior Specialist	Primary	UCSF	-
2021 – 2022	Rafi Hadad, MS	GBHI Fellow	Co-Mentor	UCSF	Behav. Neurol. Israel
2020 – 2022	Bradley Oh, BS	Student Volunteer	Primary	UCSF & UC Berkeley	-
2020 – 2022	Alexandra Saias, BS	Assistant CRC	Primary	UCSF	-
2020 – 2022	Earnest Wang, BS	Student Volunteer	Primary	UCSF & UC Berkeley	MPH Student, Columbia
2020 – 2022	Austin Chou, MD	Postdoctoral Scholar	Co-Mentor	UCSF	Data Scientist, Datarobot
2019 – 2021	Charles Windon, MD	Behavioral Neurology Fellow	Co-Mentor	UCSF	Asst. Prof., UCSF
2019 – 2020	Nicole Fernandes, PhD	Postdoctoral Scholar	Primary	UCSF	Postdoc, GSK
2019 – 2020	Alison Snyder, MD	Behavioral Neurology Fellow	Co-Mentor	UCSF	Postdoc, NIH – Ward Lab
2018 – 2021	Kyan Younes, MD	Behavioral Neurology Fellow	Co-Mentor	UCSF	Asst. Prof., Stanford
2018 – 2020	Nivetha Brathaban, BS	Research Assistant	Primary	UCSF	RA, Nurix Therap.
2018 – 2020	Devyn Cotter, BS	Assistant CRC	Co-Mentor	UCSF	PhD Student, Neuroscience , USC
2018 – 2020	Lauren Goldberger	Assistant CRC	Co-Mentor	UCSF	Registered Nurse at U. Washington
2016 – 2018	Marie Altendahl, BS	Assistant CRC	Co-Mentor	UCSF	MD Student, UCLA

PRESS & MEDIA

2023 <u>New Era for Alzheimer's Disease?</u> Aspen Ideas Health, June 24

2023 <u>Catheter treatment for atrial fibrillation may reduce dementia risk, Medical News</u> *Today,* A. Lennon, April 20

2022	Mount Sinai Scientists Awarded Grant from Chan Zuckerberg Initiative to Advance Understanding and Therapeutics for Rare Blood Vessel Disease, Mount Sinai, December 1
	IWD2022 UCSF Women in Science Panel, WPSS UCSF Physician Scientists, March 17
2021	Alzheimer's Could Lie in the Eyes of the Holder, GEN Edge, May 17
	<u>The Eyes Are a Window Into Alzheimer's Disease, Suggests New Study, Technology</u> Networks, May 17
	The Eyes Offer a Window into Alzheimer's Disease, UC San Francisco., V. Stein, May 13
	Research Roundup: Explaining Rare Immune Response in Children with COVID-19 and More, BioSpace, M. Terry, May 21
2020	<u>Putting a Women's Lens on a "Women's Disease"</u> , Here's Something Good Podcast, September 4
	<u>Dr. Jane Salmon and Dr. Fanny Elahi: Putting a "Women's Lens" on Medicine, Seneca's</u> 100 Women to Hear Podcast, September 3
	<u>Lifestyle Choices Could Slow Familial Frontotemporal Dementia</u> , <i>UC San Francisco</i> , N. Weiler, January 1
2019	<u>Understanding White Matter Changes in Aging Brains</u> , Better Health While Aging Podcast, February 7
2018	Alzheimer's and Cardiovascular Disease Share Common Genetics in Some Patients, UC San Francisco, N. Weiler, November 9

APPENDIX

CLINICAL PRACTICE

As a specialty-trained behavioral neurologist, I perform comprehensive evaluation of patients with cognitive, behavioral, psychiatric, motoric and sensorial changes. The diagnoses include: (1) Frontotemporal dementia syndromes, (2) Alzheimer's disease (typical and atypical), (3) Lewy body dementia syndromes, (4) vascular cognitive impairment and dementia, (5) rapidly progressive dementias, including encephalitis, and prion diseases. I have expertise in interpretation of clinical as well as research grade diagnostics. My research focus is genetic disorders affecting the blood-brain barrier and white matter of the brain. As such I see individuals with white matter changes diagnosed based on brain imaging. Given the therapeutic discovery program we have for CADASIL, I also have a dedicated clinic for individuals affected with CADASIL (Cerebral Autosomal Dominant Arteriopathy. In addition to my clinical responsibilities, I am the director of biomarkers for the Barbara and Maurice Deane Center for Cognitive Health. These biomarker efforts are focused on improving the precision of diagnoses and therefore the delivery of care for patients seen in clinic.

CONTRIBUTIONS TO DIVERSITY

I am committed to increasing diversity in research and academia. Throughout my professional career I have mentored women and minority trainees and plan to continue to do so. As an immigrant woman in neuroscience and medicine, I have experienced first-hand the positive impact of sponsorship and the negative impact of cultural ignorance and discrimination. I am committed to paying forward the invaluable sponsorship and mentorship I have received, without which I would not have been able to contribute to medical sciences. Beyond research in my laboratory, my commitment to medicine and discovery of impactful treatments will also translate into mentorship of the next generation of great minds in medical research. Therapeutic discoveries will require creativity and creativity needs diversity. My five first hires have been minority women from low SES, with great talent and promising careers ahead. One postdoc and technician now have great positions in industry. Every summer, I mentor medical students and seek to provide opportunities to individuals who have not been exposed to the laboratory environment. I have also mentored 3 women clinical fellows who have found faculty positions in academia and 5 women research coordinators who have obtained positions in graduate programs (MD and PhD).

In 2018, I was an invited speaker at the Fast Forward Women's Innovation Forum, Metropolitan Museum of Art, New York City organized by Seneca Women--a global leadership platform centered on the principle that advancing women and girls will fast forward us to a more equitable and prosperous world.

I have volunteered with Virtue Foundation, a non-profit organization with Special Consultative Status to the United Nation with the mission to increase awareness, inspire action and render assistance through healthcare, education and empowerment initiatives. Efforts are geared toward education, healthcare (delivery and training), empowerment of women and minorities and social justice and equity. I have helped plan medical missions and assisted with the organization of conferences and meetings. I will continue to work toward inclusion of women and minorities in healthcare, be it locally or globally.

In summary, I am committed to providing professional opportunities to those from under-represented minorities and lower SES in science and medicine. In my clinical research, I am committed to recruiting a diverse cohort for studies of neurodegenerative disorders.