

Curriculum Vitae: updated May 24, 2026

I. IDENTIFYING DATA

Name M. Brandon Westover, MD, PhD
Current Position Emily Fisher Landau Professor of Neurology, Harvard Medical School, Beth Israel Deaconess Medical Center (BIDMC)
Current Affiliation Beth Israel Deaconess Medical Center (BIDMC)

II. EDUCATION HISTORY

Colleges and Universities Attended

7/1999 BS in Physics, Brigham Young University
7/2006 PhD, Physics, Washington University in St. Louis
7/2006 MD, Washington University School of Medicine

Residency and Fellowship Training

2006 – 2007 Internship, Barnes Jewish Hospital, Washington University School of Medicine, St. Louis, MO
2007 – 2010 Residency, Partners Neurology Program (Massachusetts General Hospital and Brigham and Women's Hospital), Boston, MA
2010 – 2012 Fellowship, Epilepsy and Clinical Neurophysiology, Massachusetts General Hospital, Boston, MA

Board Certification

2011 American Board of Psychiatry and Neurology (No. 56586)

III. EMPLOYMENT

Academic Appointments:

07/12-05/14 Instructor in Neurology, Harvard Medical School, Boston, MA
05/14-05/18 Assistant Professor in Neurology, Harvard Medical School, Boston, MA
05/18-10/22 Associate Professor
10/22 – present Professor of Neurology, Harvard Medical School, Boston, MA
11/22 – present Emily Fisher Landau Professor of Neurology, Harvard Medical School, Boston, MA

Other Appointments:

2022 to present Director, Critical Care EEG Monitoring Service, BIDMC

IV. HONORS AND AWARDS

2011 Best Paper Award Statistical Literacy (www.statlit.org) Statistical Education
2012 Best Paper Award Association for Computing Machinery: Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD) Basic Research
2014 Rappaport Fellowship Massachusetts General Hospital Nominated award
2018 #1 Most Disruptive AI Innovator Partners Healthcare Partners World Innovation Forum
2018 Innovation Discovery Grant Partners Innovation Office Artificial Intelligence Research / Development
2018 MGH-MIT Grand Challenge Winner ECOR Artificial Intelligence Research
2018 Best Neurology Clinical Research Abstract MGH Neurology Department Clinical Research
2018 Best Paper Award CyberWorlds 2018, Singapore Computer Science

- 2019 Disruptive Dozen AI Innovator Massachusetts General Hospital Partners Healthcare World Innovation Forum
- 2019 Innovation Discovery Award (IDG) Partners Healthcare World Innovation Forum
- 2019 Innovative Applications in Analytics Award (IAAA) INFORMS Conference on Business Analytics & Operations Research For achievements featuring novel combinations of descriptive, predictive and prescriptive analytics.
- 2019 Best Oral Abstract: Translational American Delirium Society (ADS) ADS annual meeting
- 2019 Derek Denny-Brown Young Neurological Scholar Award American Neurological Association ANA's Highest award. For outstanding scientific advances toward the prevention, diagnosis, treatment, and cure of neurological diseases

V. BIBLIOGRAPHY

Peer-reviewed original research (370 total)

1. Eliasmith C, **Westover MB**, Anderson CH. "A general framework for neurobiological modeling: an application to the vestibular system." *Neurocomputing (Amst)*. 2002 Jun;44-46:1071-6. doi: 10.1016/s0925-2312(02)00418-6. PMID: PMC6788744.
2. **Westover MB**, Eliasmith C, Anderson CH. "Linearly decodable functions from neural population codes." *Neurocomputing (Amst)*. 2002 Jun;44-46:691-696. doi: 10.1016/s0925-2312(02)00459-9. Epub 2002 Mar 26. PMID: PMC7062372.
3. Fischer BJ, **Westover MB**. "The neural multiple access channel." *Neurocomputing (Amst)*. 2003 Jun;52-54:511-518. doi: 10.1016/s0925-2312(02)00762-2. Epub 2003 Jan 29. PMID: PMC7062373.
4. **Westover MB**, Anderson CH. "Layer 4C in monkey V1 may linearize the output of the LGN." *Neurocomputing (Amst)*. 2003 Jun;52-54:671-676. doi: 10.1016/s0925-2312(02)00863-9. Epub 2003 Jan 28. PMID: PMC7062374.
5. **Westover MB**, O'Sullivan JA. "Achievable Rates for Pattern Recognition." *IEEE Trans Inf Theory*. 2008 Jan;54(1):299-320. doi: 10.1109/tit.2007.911296. Epub 2008 Jan 04. PMID: PMC7062371.
6. **Westover MB**. "Asymptotic Geometry of Multiple Hypothesis Testing." *IEEE Trans Inf Theory*. 2008 Jul;54(7):3327-3329. doi: 10.1109/TIT.2008.924656. Epub 2008 Jun 17. PMID: PMC6788803.
7. Woeltje KF, Butler AM, Goris AJ, Tutlam NT, Doherty JA, **Westover MB**, Ferris V, Bailey TC. "Automated surveillance for central line-associated bloodstream infection in intensive care units." *Infect Control Hosp Epidemiol*. 2008 Sep;29(9):842-6. doi: 10.1086/590261. PMID: PMC6788749.
8. Mueen A, Keogh E, Zhu Q, Cash S, **Westover B**. "Exact Discovery of Time Series Motifs." *Proc SIAM Int Conf Data Min*. 2009;2009:473-484. doi: 10.1137/1.9781611972795.41. PMID: PMC6814436.
9. Chu-Shore J, **Westover MB**, Bianchi MT. "Power law versus exponential state transition dynamics: application to sleep-wake architecture." *PLoS One*. 2010 Dec 02;5(12):e14204. doi: 10.1371/journal.pone.0014204. PMID: PMC2996311.
10. Mueen A, Keogh E, Zhu Q, Cash SS, **Westover MB**, Bigdely-Shamlo N. "A disk-aware algorithm for time series motif discovery." *Data Min Knowl Discov*. 2011 Jan;22(1-2):73-105. doi: 10.1007/s10618-010-0176-8. Epub 2010 Apr 18. PMID: PMC7062370.
11. Zhang WJ, **Westover MB**, Keary CJ. "Premortem diagnosis of sporadic Creutzfeldt-Jakob disease aided by positron-emission tomography imaging." *AJNR Am J Neuroradiol*. 2011 Jan;32(1):E18. doi: 10.3174/ajnr.A2292. Epub 2010 Nov 11. PMID: PMC6788750.
12. **Westover MB**, Bianchi MT, Eckman MH, Greenberg SM. "Statin use following intracerebral hemorrhage: a decision analysis." *Arch Neurol*. 2011 May;68(5):573-9. doi: 10.1001/archneurol.2010.356. Epub 2011 Jan 10. PMID: PMC3158138.
 - Featured article with accompanying editorial: *Arch Neurol*. 2011;68(5):565-566. "Statins After Intracerebral Hemorrhage: To Treat or Not to Treat".
 - Covered in over 150 news feeds, including CBS News, ABC News, US News and World Report, and Medscape Medical News.

13. **Westover MB, Westover KD**, Bianchi MT. "Significance testing as perverse probabilistic reasoning." *BMC Med.* 2011 Feb 28;9:20. doi: 10.1186/1741-7015-9-20. PMID: PMC3058025.
14. **Westover KD, Westover MB**, Winer EP, Richardson AL, Iglehart JD, Punglia RS. "Should a sentinel node biopsy be performed in patients with high-risk breast cancer?." *Int J Breast Cancer.* 2011;2011:973245. doi: 10.4061/2011/973245. Epub 2011 Aug 10. PMID: PMC3262582.
15. Eiseman NA, **Westover MB**, Mietus JE, Thomas RJ, Bianchi MT. "Classification algorithms for predicting sleepiness and sleep apnea severity." *J Sleep Res.* 2012 Feb;21(1):101-12. doi: 10.1111/j.1365-2869.2011.00935.x. Epub 2011 Jul 14. PMID: PMC3698244.
16. Pascual-Leone A, Freitas C, Oberman L, Horvath JC, Halko M, Eldaief M, Bashir S, Vernet M, Shafi M, **Westover B**, Vahabzadeh-Hagh AM, Rotenberg A. "Characterizing brain cortical plasticity and network dynamics across the age-span in health and disease with TMS-EEG and TMS-fMRI." *Brain Topogr.* 2011 Oct;24(3-4):302-15. doi: 10.1007/s10548-011-0196-8. Epub 2011 Aug 14. PMID: PMC3374641.
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21. Shafi MM, **Westover MB**, Fox MD, Pascual-Leone A. "Exploration and modulation of brain network interactions with noninvasive brain stimulation in combination with neuroimaging." *Eur J Neurosci.* 2012 Mar;35(6):805-25. doi: 10.1111/j.1460-9568.2012.08035.x. PMID: PMC3313459.
22. Rakthanmanon T, Campana B, Mueen A, Batista G, **Westover B**, Zhu Q, Zakaria J, Keogh E. "Searching and Mining Trillions of Time Series Subsequences under Dynamic Time Warping." *KDD.* 2012 Aug;2012:262-270. doi: 10.1145/2339530.2339576. PMID: PMC6816304.
 - Best Paper Award at Association for Computing Machinery's annual SIGKDD (Special Interest Group on Knowledge Discovery and Data Mining) meeting, 2012.
23. Eiseman NA, **Westover MB**, Ellenbogen JM, Bianchi MT. "The impact of body posture and sleep stages on sleep apnea severity in adults." *J Clin Sleep Med.* 2012 Dec 15;8(6):655-66A. doi: 10.5664/jcsm.2258. PMID: PMC3501662.
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Ching S, Liberman MY, Chemali JJ, **Westover MB**, Kenny JD, Solt K, Purdon PL, Brown EN. "Real-time closed-loop control in a rodent model of medically induced coma using burst suppression." *Anesthesiology*. 2013 Oct;119(4):848-60. doi: 10.1097/ALN.0b013e31829d4ab4. PMID: PMC3857134.
32. **Westover MB**, Bianchi MT, Yang C, Schneider JA, Greenberg SM. "Estimating cerebral microinfarct burden from autopsy samples." *Neurology*. 2013 Apr 09;80(15):1365-9. doi: 10.1212/WNL.0b013e31828c2f52. Epub 2013 Mar 13. PMID: PMC3662273.
33. Featured article with accompanying editorial: *Neurology*. 2013 Apr 9;80(15):1358-9, "Cerebral Microinfarcts: Enumerating the Innumerable".
34. Recognized as work of special significance by Faculty of 1000: Baird A and Adamski M: F1000Prime Recommendation of [Westover MB et al., *Neurology* 2013, 80(15):1365-9]. In F1000Prime, 30 Apr 2013; DOI: 10.3410/f.718000104.793474863. F1000Prime.com/718000104#eval793474863.
 - Brandon **Westover M**, Shafi MM, Ching S, Chemali JJ, Purdon PL, Cash SS, Brown EN. "Real-time segmentation of burst suppression patterns in critical care EEG monitoring." *J Neurosci Methods*. 2013 Sep 30;219(1):131-41. doi: 10.1016/j.jneumeth.2013.07.003. Epub 2013 Jul 23. PMID: PMC3939433.
 - Ng MC, **Westover MB**, Cole AJ. "Treating seizures in Creutzfeldt-Jakob disease." *Epilepsy Behav Case Rep*. 2014;2:75-9. doi: 10.1016/j.ebcr.2014.01.004. Epub 2014 Feb 07. PMID: PMC4308028.
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43. Carlson C. "Can We Screen EEGs More Efficiently? Spectrographic Review of EEG Data." *Epilepsy Curr*. 2015;15(1):24-5. doi: 10.5698/1535-7597-15.1.24. PMID: PMC4320952.
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- resource-limited settings: a decision analysis.” *Neurology*. 2014 Aug 26;83(9):787-93. doi: 10.1212/WNL.0000000000000730. Epub 2014 Jul 23. PMID: PMC4155044.
- Gaspard N, Hirsch LJ, LaRoche SM, Hahn CD, **Westover MB**, Critical Care EEG Monitoring Research Consortium. “Interrater agreement for Critical Care EEG Terminology.” *Epilepsia*. 2014 Sep;55(9):1366-73. doi: 10.1111/epi.12653. Epub 2014 Jun 02. PMID: PMC4879939.
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- Bianchi MT, Lipoma T, Darling C, Alameddine Y, **Westover MB**. “Automated sleep apnea quantification based on respiratory movement.” *Int J Med Sci*. 2014;11(8):796-802. doi: 10.7150/ijms.9303. Epub 2014 May 30. PMID: PMC4057486.
45. Jing Jin, Dauwels J, Cash S, **Westover MB**. “SpikeGUI: software for rapid interictal discharge annotation via template matching and online machine learning.” *Annu Int Conf IEEE Eng Med Biol Soc*. 2014;2014:4435-8. doi: 10.1109/EMBC.2014.6944608. PMID: PMC4416962.
46. Akeju O, **Westover MB**, Pavone KJ, Sampson AL, Hartnack KE, Brown EN, Purdon PL. “Effects of sevoflurane and propofol on frontal electroencephalogram power and coherence.” *Anesthesiology*. 2014 Nov;121(5):990-8. doi: 10.1097/ALN.0000000000000436. PMID: PMC4206606.
47. Akama-Garren EH, Bianchi MT, Leveroni C, Cole AJ, Cash SS, **Westover MB**. “Weighing the value of memory loss in the surgical evaluation of left temporal lobe epilepsy: a decision analysis.” *Epilepsia*. 2014 Nov;55(11):1844-53. doi: 10.1111/epi.12790. Epub 2014 Sep 19. PMID: PMC4877127.
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50. **Westover MB**, Shafi MM, Bianchi MT, Moura LM, O'Rourke D, Rosenthal ES, Chu CJ, Donovan S, Hoch DB, Kilbride RD, Cole AJ, Cash SS. “The probability of seizures during EEG monitoring in critically ill adults.” *Clin Neurophysiol*. 2015 Mar;126(3):463-71. doi: 10.1016/j.clinph.2014.05.037. Epub 2014 Jul 11. PMID: PMC4289643.
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54. Kenny JD, **Westover MB**, Ching S, Brown EN, Solt K. “Propofol and sevoflurane induce distinct burst suppression patterns in rats.” *Front Syst Neurosci*. 2014;8:237. doi: 10.3389/fnsys.2014.00237. Epub 2014 Dec 18. PMID: PMC4270179.
55. Ng MC, Gaspard N, Cole AJ, Hoch DB, Cash SS, Bianchi M, O'Rourke DA, Rosenthal ES, Chu CJ, **Westover MB**. “The standardization debate: A conflation trap in critical care electroencephalography.” *Seizure*. 2015 Jan;24:52-8. doi: 10.1016/j.seizure.2014.09.017. Epub 2014 Oct 16. PMID: PMC4465375.
56. de Gusmão CM, Berkowitz AL, Hung AY, **Westover MB**. “Cerebrospinal fluid shunt-induced chorea: case report and review of the literature on shunt-related movement disorders.” *Pract Neurol*. 2015

- Feb;15(1):42-4. doi: 10.1136/practneurol-2014-000913. Epub 2014 Jul 04. PMID: PMC4870013.
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59. **Westover MB**, Kim SE, Ching S, Purdon PL, Brown EN. "Robust control of burst suppression for medical coma." *J Neural Eng*. 2015 Aug;12(4):046004. doi: 10.1088/1741-2560/12/4/046004. Epub 2015 May 28. PMID: PMC4517835.
60. Alvarez V, Drislane FW, **Westover MB**, Dworetzky BA, Lee JW. "Characteristics and role in outcome prediction of continuous EEG after status epilepticus: A prospective observational cohort." *Epilepsia*. 2015 Jun;56(6):933-41. doi: 10.1111/epi.12996. Epub 2015 May 07. PMID: PMC4878827.
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Peer-reviewed publications (accepted, in press)

1. Nascimento FA, Katyal R, Kass NR, Yuan D, Sirven JI, Westover MB, Beniczky S. "Electroencephalography in clinical practice: results from an AAN Practice Current survey." *Journal of Clinical Neurophysiology*.**
2. Sartipi S, Godfrey DS, Tauţan AM, Fernandes MP, Ghanta M, Gupta A, Nearing B, Kim J, Struck AF, Loddenkemper T, Peters J, Lee JW, Westover MB, Zafar SF. Automated Extraction of Seizures and Ictal-Interictal Continuum Patterns from EEG Reports to Enable Large-Scale Neurophysiology and Neurocritical Care Research. Available at SSRN. doi: 10.2139/ssrn.5489575. SSRN.**

Peer-reviewed publications (other - 8 total)

1. Westover MB. "Review of Peter Dayan & L. F. Abbott's Theoretical Neuroscience: Computational and Mathematical Modeling of Neural Systems." *Philosophical Psychology*. 2002. 15: 563-567.
2. Bianchi MT and Westover MB. (2009) "Comment on: Analysis of SPARCL trial data for reduction of future stroke risk in older stroke patients with recent stroke or TIA." *Neurology* 73(10):817-818.
3. Westover MB, Gaspard N. "Not a simple plumbing problem: Updating our understanding of delayed cerebral ischemia in aneurysmal subarachnoid hemorrhage." *J Clin Neurophysiol*. 2016 Jun;33(3):171-3. PMID: 268494327. Invited review as Guest Editor for a special issue of JCN on the neurophysiology of subarachnoid hemorrhage.
4. Dreier J, Fabricius M, Cenk A, Sakowitz O, Shuttleworth C, Dohmen C, Graf R, Vajkoczy P, Helbok R, Suzuki M; Schiefecker A,; Major S, Winkler M, Kang EJ, Milakara D, Oliveira-Ferreira A, Reiffurth C, Revankar G, Sugimoto K, Dengler N, Hecht N, Foreman B, Feyen B, Kondziella D, Friberg C, Piilgaard H, Rosenthal ES, Westover MB, Maslarova A, Santos E, Hertle D, Sanchez-Porrás R, Jewell S, Balança B, Platz J, Hinzman J, Luckl J, Schoknecht K, Schöll M, Drenckhahn C, Feuerstein D, Eriksen N, Horst V, Bretz J, Jahnke P, Scheel M, Bohner G, Rostrup E, Pakkenberg B, Heinemann U, Claassen J, Carlson A, Kowoll C, Lublinsky S, Chassidim Y, Shelef I, Friedman A, Brinker G, Reiner M, Kirov S, Andrew R, Farkas E, Guerresir, E, Vatter H, Chung L, Brennan K, Lieutaud T, Marinesco S, Maas A, Sahuquillo J, Dahlem M, Richter F, Herreras O, Boutelle M, Okonkwo D, Bullock R, Witte OW, Martus P, Van den Maagdenberg A, Ferrari M, Dijkhuizen R, Shutter L, Andaluz N, Schulte A, MacVicar B, Watanabe T, Woitzik J, Lauritzen M, Strong A, Hartings J. "Recording, analysis, and interpretation of spreading depolarizations in neurointensive care: review and recommendations of the COSBID research group." *Journal of Cerebral Blood Flow and Metabolism*. 2016 Jun 17. pii: 0271678X16654496. [Epub ahead of print] PMID: 27317657.
5. Westover MB, Halford JJ, Bianchi MT. What it should mean for an algorithm to pass a statistical Turing test for detection of epileptiform discharges. *Clin Neurophysiol*. 2017 Jul;128(7):1406-1407. doi: 10.1016/j.clinph.2017.02.026. Epub 2017 Mar 16. PMID: 28495216; PMID: 28495216; PMID: 28495216.
6. Bianchi MT, Thomas RJ, Westover MB. An open request to epidemiologists: please stop querying self-reported sleep duration. *Sleep Med*. 2017 Jul;35:92-93. doi: 10.1016/j.sleep.2017.02.001. Epub 2017 Feb 17. PMID: 28495212.

7. Singla S, Garcia GE, Rovenolt GE, Soto AL, Gilmore EJ, Hirsch LJ, Blumenfeld H, Sheth KN, Omay SB, Struck AF, Westover MB, Kim JA. "Detecting Seizures and Epileptiform Abnormalities in Acute Brain Injury." *Curr Neurol Neurosci Rep*. 2020 Jul 27;20(9):42. doi: 10.1007/s11910-020-01060-4. Review. PMC9353690.
8. Nasiri S, Ganglberger W, Sun H, Thomas RJ, Westover MB. Exploiting Labels from Multiple Experts in Automated Sleep Scoring. *Sleep*. 2023 Feb 16;zsad034. doi: 10.1093/sleep/zsad034. Epub ahead of print. PMID: 36795078.

9.

Non-Peer-reviewed Articles

1. Westover MB, O'Sullivan JA. "Towards an information theoretic framework for object recognition." IEEE 2004 International Symposium on Information Theory, Chicago, Illinois, June 27-July 2, 2004.
2. Westover MB, O'Sullivan JA. "Achievable rates for pattern recognition: Binary and Gaussian cases." IEEE 2005 International Symposium on Information Theory, Adelaide, Australia, Sept 4-9, 2005.
3. O'Sullivan JA, Singla N, and Westover MB. "Successive Refinement for Pattern Recognition," IEEE Information Theory Workshop, Punta del Este, Uruguay, Feb 2006.
4. Liddle S, Zhang R, Grover L, Khitrov M, Brown J, Cobb JP, Goldman J, Chou J, Westover MB, Yagoda D, Reisner A, "Safety Evaluation of a Medical Device Data System". International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'12), San Diego, California, USA on August 28 - September 1, 2012.
5. Bianchi MT, Thomas RJ, Westover MB. "Response." *Sleep Med*. 2017 Aug 3. pii: S1389-9457(17)30316-7. doi: 10.1016/j.sleep.2017.07.017. [Epub ahead of print] PMID: 2884338
6. Amorim E, Zheng WL, Ghassemi MM, Aghaeeval M, Kandhare P, Karukonda V, Lee JW, Herman ST, Sivaraju A, Gaspard N, Hofmeijer J, van Putten MJAM, Sameni R, Reyna MA, Clifford GD, Westover MB. "The International Cardiac Arrest Research (I-CARE) Consortium Electroencephalography Database." medRxiv. 2023 Aug 28:2023.08.28.23294672. doi: 10.1101/2023.08.28.23294672. Preprint. PMID: 37693458.
7. Sun H, Ganglberger W, Westover MB, Thomas RJ. "Sleep as a Window into Brain Health: Clinical Implications from the Sleeping Brain Wave-Structure Associations." *SLEEP*. 2025 May. (Editorial).**

8.

Book Chapters

1. Westover MB, Thomas TT, Greer DM, "Delirium" in *Pocket Neurology*, ed. Westover MB, Choi E, Awad KM, and Greer DM, Lippincott Williams & Wilkins, 2010, 86-89.
2. Westover MB, Choi E, Awad KM, Greer DM, Editors. *Pocket Neurology*. Lippincott Williams & Wilkins, 2010.
3. Westover MB, Peters JM, Bromfield EB, "Seizures and Other Spells" in *Pocket Neurology*, ed. Westover MB, Choi E, Awad KM, and Greer DM, Lippincott Williams & Wilkins, 2010, 57-79.
4. Westover MB, Xia, Z, Cho TA, "Meningitis, Encephalitis, & Brain Abscesses" in *Pocket Neurology*, ed. Westover MB, Choi E, Awad KM, and Greer DM, Lippincott Williams & Wilkins, 2010, 136-149.
5. Thomas TT, Westover MB, "Rapidly Progressive Dementia" in *Pocket Neurology*, ed. Westover MB, Choi E, Awad KM, and Greer DM, Lippincott Williams & Wilkins, 2010, 89-96.
6. Kummer TT, Westover MB, "Central Nervous System Vasculitis" in *Pocket Neurology*, ed. Westover MB, Choi E, Awad KM, and Greer DM, Lippincott Williams & Wilkins, 2010, 175-177.
7. Westover MB, Awad K, "Ischemic Stroke, Muscular Dystrophy and Friedreich's Ataxia" in *MGH Cardiology Board Review*. Springer-Verlag, London, 2013.

8. Westover MB, Edlow BL, Greer DM, “Coma After Cardiac Arrest: Management and Neurological Prognostication” in MGH Cardiology Board Review. Springer-Verlag, London, 2013.
9. Westover MB, Shafi MM, “Seizures” in Pocket ICU, Lippincott Williams & Wilkins, 2013.

VI. GRANT FUNDING

Current:

- | | |
|-------------------|---|
| 09/2021 – 05/2026 | Funder: NIH-NINDS (R01 AG073410)
Title: Comparative Safety of Seizure Prophylaxis within the Medicare Program
Role: Co-Investigator (PI: Lidia Maria Moura) |
| 05/2021 – 04/2026 | Funder: NIH-NINDS (R01 NS120947)
Title: Establishing a Brain Health Index from the Sleep Electroencephalogram
Role: PI |
| 09/2022 – 08/2027 | Funder: NIH-NHLBI (R01 HL161253)
Title: Data-Driven Sleep Biomarkers of Brain Health, Heart Health, and Mortality
Role: PI |
| 08/2022 – 04/2027 | Funder: NIH-NIA (R01 AG073598)
Title: Low Neurophysiologic Resistance to Anesthetics as a Marker of Preclinical/Prodromal Alzheimer’s Disease and Neurovascular Pathology, Delirium Risk and Inattention
Role: Co-Investigator (PI: Miles Berger, via Duke subcontract) |
| 01/2023 – 12/2027 | Funder: NIH-NINDS (R01 NS126282)
Title: Prospective Validation of Neurophysiologic Outcome Prediction in Acute Brain Injury
Role: PI |
| 09/2023 – 05/2028 | Funder: NIH-NINDS (R01 NS130119)
Title: Late-Onset Unexplained Epilepsy as a Risk Factor for Dementia
Role: Co-PI (with Alice D. Lam) |
| 12/2023 – 11/2028 | Funder: NIH-NINDS (R01 NS131347)
Title: Comparative Effectiveness of EEG-Guided Anti-Seizure Treatment in Acute Brain Injury
Role: Co-Investigator (PI: Sahar F. Zafar) |
| 11/2023 – 10/2028 | Funder: NIH-NIA (R01 AG078261)
Title: Delirium Dynamics: Understanding Causes and Effects
Role: Co-Investigator (PI: Eyal Kimchi, via Northwestern subcontract) |
| 09/2023 – 09/2025 | Funder: NIH-NIA (R21 AG085495)
Title: Development of Novel Polysomnography-Based Digital Biomarkers to Predict Alzheimer’s Disease and Parkinson’s Disease
Role: Co-Investigator (PI: Yue Leng, via UCSF subcontract) |
| 02/2025 – 02/2026 | Funder: Takeda (PO8001791544)
Title: Analysis of Risk of Narcolepsy through Clinical Notes |

Role: PI

Submitted:

- 12/2025 – 11/2030 Funder: NIH (Pending)
Title: Leveraging Clinical Data and Automation to Predict Epilepsy After TBI
Role: Co-Investigator (PI: Jennifer Kim)
- 12/2025 – 11/2030 Funder: NIH (Pending)
Title: De-Biasing Effect Assessment of Seizure Effects on Neurologic Outcomes (DEBIAS)
Role: Co-Investigator (PI: Adrian Dalca)
- 12/2025 – 11/2030 Funder: NIH-NINDS (Pending)
Title: Automating Critical Care Electroencephalography Using AI Foundation Models
Role: PI
- 12/2027 – 11/2030 Funder: NIH (Pending)
Title: *Tana Mu Na?* Feasibility of Mobile EEG and Automated Intelligence to Diagnose Epilepsy in Children in Guinea-Bissau
Role: Co-Investigator (PI: Farrah Mateen)
- 07/2025 – 06/2030 Funder: NIH-NINDS (1UG3NS143749-01)
Title: Continuous Monitoring of Pain Using Facial Expressions in the ICU Environment (COMPANION)
Role: Co-Investigator (PI: Hao Deng)

Completed:

- 2012 – 2014 Funder: American Brain Foundation Clinical Research Training Fellowship
Title: Early Detection of Delayed Cerebral Ischemia After Subarachnoid Hemorrhage Using Context-Sensitive Computational EEG
Role: PI
- 2014 – 2019 Funder: NIH-NINDS (K23 NS090900)
Title: Quantitative Neurophysiological Monitoring and Control of Sedation-Analgesia in the ICU Environment
Role: PI
- 2017 – 2019 Funder: SAGE Therapeutics
Title: Automated Detection of Seizure-Spectrum Patterns and Quantitative Neurological Outcome Prediction
Role: PI
- 2018 – 2019 Funder: Partners Healthcare Innovation
Title: Artificial Intelligence-Based Seizure Detection and Classification
Role: PI
- 2018 – 2019 Funder: MGH-MIT Grand Challenge
Title: Big Data and Deep Learning for the Interictal-Ictal-Injury Continuum
Role: PI

- 2018 – 2021 Funder: Glenn Foundation for Medical Research
 Title: Electroencephalogram-Based Brain Age and Its Relationship with Cognitive Function and Sleep Quality
 Role: PI
- 2018 – 2023 Funder: NIH-NINDS (R01 NS102190)
 Title: Investigation of Sleep in the Intensive Care Unit
 Role: PI
- 2019 – 2024 Funder: NIH-NINDS (R01 NS107291)
 Title: Deep Learning for the Ictal-Interictal-Injury Continuum
 Role: PI
- 2018 – 2023 Funder: NIH-NINDS (R01 NS102574)
 Title: Multimodal Network Connectivity Architecture (MOCA) of the Brain and Its Role in Recovery of Consciousness in Comatose Cardiac Arrest Patients
 Role: Co-Investigator (PI: Ona Wu)
- 2019 – 2024 Funder: NIH-NIA (R01 AG060987)
 Title: Treating Hyperexcitability in Alzheimer’s Disease with Levetiracetam to Improve Brain Function and Cognition
 Role: Co-Investigator (PI: Mouhsin Shafi)
- 2019 – 2024 Funder: NIH-NIA (RF1 AG064312)
 Title: Integrated Motor Activity Biomarker for Risk of Alzheimer’s Dementia
 Role: Co-Investigator (PI: Kun Hu)

VII. PROFESSIONAL ACTIVITIES

Editorial Service

- 2010 Editor, Pocket Neurology, Lippincott Williams & Wilkins
 2016 Editor, Pocket Neurology, 2nd Edition; Wolters Kluwer
 2019-2024 Editorial Board Member, Journal of Clinical Neurophysiology

Ad Hoc Reviewer

- 2010- present Neurology
 2010- present JAMA Neurology (formerly Archives of Neurology)
 2006- present Philosophical Psychiatry
 2010- present Journal of Clinical Epidemiology
 2010- present BMJ Case Reports
 2010- present IEEE Transactions on Information Theory
 2010- present IEEE Transactions on Signal Processing
 2010- present Journal of Medical Engineering
 2010- present Journal of Clinical Neurophysiology
 2010- present Journal of Neuroscience
 2010- present European Journal of Neurology
 2010- present Critical Care Medicine
 2010- present Annals of Clinical and Translational Neurology
 2010- present Journal of Neural Engineering
 2010- present Journal of Cerebral Blood Flow & Metabolism
 2010- present Computers in Biology and Medicine

2010- present Proceedings of the National Academy of Sciences (PNAS)
 2010- present Brain
 2010- present Epilepsy Research
 2010- present American Journal of Respiratory and Critical Care Medicine
 2010- present SLEEP

Service as Grant Reviewer

2018-2020 Ad Hoc Member, Acute Neural Injury & Epilepsy (ANIE), NIH
 2021- 2025 Permanent Member, Acute Neural Injury & Epilepsy (ANIE), NIH

University Administrative Service

2011-2017 Critical Care Informatics Committee Massachusetts General Hospital
 2011-2022 Neurocritical Care Clinical Review Committee Massachusetts General Hospital
 2011-2022 Co-director, MGH Neuromonitoring Committee Massachusetts General Hospital
 2010-2016 Member, MGH EEG Reporting System Redesign Committee, MGH
 2013-2017 MGH Infusion Pump Committee Massachusetts General Hospital
 2014-2022 MGH Cooling Committee Massachusetts General Hospital
 2015-2018 Member, PhD Thesis Committee (Candidate: Mohammad Ghassemi), MIT
 2015-2019 Member, PhD Thesis Committee (Candidate: Jing Zhi An), MIT
 2017-2019 Chair, Data Safety Monitoring Board (DSMB) for R01 (PI: Ken Solt), MGH
 2018-2020 Member, DSMB for R01 (PI: Alvaro Pascual Leone), BIDMC

Service to Professional Organizations

2011-2014 TRENdS (Treatment of Recurrent Nonconvulsive SeizureS) Clinical Trial Investigators Committee, Duke University / Duke Clinical Research Institute (DCRI)
 2015-2017 Member at Large Critical Care EEG Monitoring Research Consortium (CCEMRC)
 2016 Co-Chair, 7th International Conference on Extreme Learning Machines (ELM2016). Singapore, December 13-15, 2016.
 2017-2019 Vice-Chair, Critical Care EEG Monitoring Research Consortium (CCEMRC)
 2017 Co-Chair, The 8th International Conference on Extreme Learning Machines (ELM2017). Yantai, China, October 4-7, 2017.
 2019-2021 Chair, Critical Care EEG Monitoring Research Consortium (CCEMRC)
 2025-2029 Chair, International League Against Epilepsy (ILAE) – Commission on Big Data and AI
 2025- Committee Member, NINDS Common Data Elements (CDE) in Epilepsy Research Oversight Committee.

Community Service

2012 Christ Lutheran Nursery School, Belmont, MA Educational Speaker
 2014 Boy Scout Troop 66, Belmont, MA. Belmont, MA Educational Speaker
 2014 Butler Elementary School, Belmont, MA, Educational Speaker
 2016 Butler Elementary School, Belmont, MA, Educational Speaker

VIII. INVITED PRESENTATIONS (SINCE 2020)

Grand Rounds:

1. “Little; Yellow; Different: Hyperbilirubinemia in preterm infants of lactating depressed female Green Monkeys receiving CACKLE-modified dairy supplements.” Neonatology Grand Rounds, Stanford University, Stanford, CA (2022)

2. "Monitoring and Closed-Loop Control of Burst Suppression." Neurology Grand Rounds, Massachusetts General Hospital, Boston, MA (2013)
3. "Continuous Brain Monitoring in Critical Care." Anesthesia, Critical Care and Pain Medicine Grand Rounds, Massachusetts General Hospital, Boston, MA (2013)
4. "Why Brains Need Computers." Neurology Grand Rounds, Massachusetts General Hospital, Boston, MA (2016)
5. "Towards Personalized Critical Care Brain Monitoring." Neurology Grand Rounds, Stanford University, Palo Alto, CA (2017)
6. "Machine Learning in Neurology." Neurology Grand Rounds, University of Wisconsin, Madison, WI (2019)
7. "Early Ischemia Detection Using EEG in Subarachnoid Hemorrhage." Neurology Grand Rounds, University Hospitals Cleveland Medical Center, Cleveland, OH (2019)
8. "Automating Clinical Neurophysiology." Neurology Grand Rounds, Stanford University, Palo Alto, CA (2019)
9. "AI in Clinical Neurophysiology." Neurology Grand Rounds, Massachusetts General Hospital, Boston, MA (2020)
10. "Covid-19 Outcome Risk Prediction." Neurology Grand Rounds, Massachusetts General Hospital, Boston, MA (2020)
11. "Automated EEG Analysis in Clinical Care." Neurology Grand Rounds, University of California San Diego, San Diego, CA (2020)
12. "Denoising the Diagnosis of Epilepsy." Neurology Grand Rounds, Einstein Medical Center Philadelphia, Philadelphia, PA (2022)
13. "Quantifying the Ictal-Interictal-Injury Continuum." Neurocritical Care Grand Rounds, University of Washington, Seattle, WA (2022)
14. "Superhuman Management of Seizures in the ICU." Neurology Grand Rounds, Yale School of Medicine, New Haven, CT (2023)
15. "Optimizing Detection and Treatment of Nonconvulsive Status Epilepticus." Geschwind Pan-Harvard Grand Rounds, Harvard Medical School, Boston, MA (2023)
16. "Big Data and AI to Achieve Superhuman Detection and Treatment of Seizures in ICU Patients." Healthcare Delivery Science Grand Rounds, Beth Israel Deaconess Medical Center / Harvard Medical School, Boston, MA (2023)
17. "Toward Optimal Treatment of Harmful Brain Activity in Critical Illness." Neurology Grand Rounds, University Hospital Cleveland Medical Center, Cleveland, OH (2024)
18. "Reducing Noise in the Diagnosis of Epilepsy." Neurology Grand Rounds, University of Texas Houston, Houston, TX (2024)
19. "Reducing Noise in the Diagnosis of Epilepsy." Neurology Grand Rounds, University of Pennsylvania, Philadelphia, PA (2024)
20. "Reducing Diagnostic Noise in Neurology: Lessons from Epilepsy." Neurology Grand Rounds, Beth Israel Deaconess Medical Center / Harvard Medical School, Boston, MA (2025)
21. "Reducing Noise in Neurology: Lessons from Epilepsy." Neurology Grand Rounds, University of Michigan, Ann Arbor, MI (2025)

Local Invited Presentations:

1. "What is monkey cortex layer four for?." Neuroanatomy & Neurobiology Department, Washington University School of Medicine, St. Louis, MO (2002)
2. "EEG Patterns in the Neurological ICU." MGH Neurosciences ICU, Boston, MA (2010)
3. "Should Statins Be Avoided After Intracerebral Hemorrhage? Implications of SPARCL." MGH Stroke Research Center, Boston, MA (2010)
4. "Fundamentals of ICU EEG Monitoring." Nursing Skills Day, MGH Neurosciences ICU, Boston, MA (2012)

5. "Status Epilepticus and the Ictal–Interictal Continuum: Introduction to ICU EEG." MGH Critical Care Center, Boston, MA (2012)
6. "Neurological Prognostication in Coma After Cardiac Arrest." MGH Critical Care Center, Boston, MA (2013)
7. "Monitoring and Closed-Loop Control of Burst Suppression." Department of Brain & Cognitive Sciences, MIT, Cambridge, MA (2014)
8. "EEG-Related Skin Lesions: Statistical Process Monitoring & Risk Reduction." MGHfC Quality & Safety Operations Lead Team Meeting, Boston, MA (2014)
9. "Fundamentals of Continuous EEG Monitoring in Neurocritical Care; Quantitative Clinical EEG Fundamentals." MGH Neurosciences ICU & BWH/MGH Clinical Neurophysiology Fellows Didactic Conference, Boston, MA (2014)
10. "Automated Surveillance for Ventilator-Associated Pneumonia." MGH Infection Control Committee, Boston, MA (2015)
11. "The Role of Continuous EEG in Coma After Cardiac Arrest: Prognostic Value." MGH EEG Technologist Training Meeting, Boston, MA (2015)
12. "Quantitative Electroencephalography." Epilepsy Fellows Training Conference, MGH Neurology, Boston, MA (2017)
13. "CDAC: Bringing Big Clinical Data to Life." MGH Neurosurgery Faculty Meeting, Boston, MA (2018)
14. "Landmark Project #4: Clinical Time Series Data." Partners HealthCare EDMT Meeting, Boston, MA (2018)
15. "Validating the Brain Age Index: Modifying Brain Aging Through Exercise." McCance Center for Brain Health Faculty Meeting, Boston, MA (2019)
16. "Automatic Detection of Nonconvulsive Seizures." BIDMC Research Day, Boston, MA (2023)

National and Regional Meetings:

1. "Automatic Detection of Beta Amyloid in Digital Images Using Visual Texture." Alzheimer's Disease Research Center, Washington University, St. Louis, MO (2005)
2. "Early Detection of Delayed Cerebral Ischemia Using EEG." Greater Boston Epilepsy Society, Boston, MA (2015)
3. "Polysomnographic Signatures of Brain Age." Massachusetts Sleep Society, Westborough, MA (2017)
4. "Artificially Intelligent Brain Monitoring." World Medical Innovation Forum, Boston, MA (2019)
5. "Expert-Level Automatic Detection of Epileptiform Discharges." American Neurological Association, St. Louis, MO (2019)
6. "EEG Monitoring for Early Detection of Cerebral Ischemia." American Clinical Neurophysiology Society Annual Meeting, New Orleans, LA (2020)
7. "Automating Clinical Neurophysiology." Duke Comprehensive Epilepsy Center Quarterly Research Symposium, Durham, NC (2020)
8. "Big Data and Machine Learning to Advance Status Epilepticus Research." American Neurological Association, Virtual Meeting (2020)
9. "Automated Detection of Seizures and Ictal–Interictal Continuum Patterns Using Deep Learning." American Clinical Neurophysiology Society Annual Meeting, Virtual (2021)
10. "Sleep as a Window into Brain Health." Harvard Sleep Grand Rounds, Virtual (2021)
11. "Avoiding Pitfalls in EEG Interpretation." American Academy of Neurology Annual Meeting, Seattle, WA (2022)
12. "Artificial Intelligence in Sleep Medicine." American Neurological Association Annual Meeting, Chicago, IL (2022)
13. "Addressing Problems in Critical Care Neurophysiology Using Machine Learning." Machine Learning in Medicine Seminar Series, Carnegie Mellon University, Pittsburgh, PA (2022)
14. "Epileptiform and Non-Epileptiform Findings in ICU Electroencephalography." American Academy of Neurology Annual Meeting, Boston, MA (2023)

15. “Neurophysiological Grading of Encephalopathy.” American Academy of Neurology Annual Meeting, Boston, MA (2023)
16. “Identifying and Overcoming Barriers for Clinical Use of Artificial Intelligence in Sleep Medicine.” American Academy of Sleep Medicine Annual Meeting, Indianapolis, IN (2023)
17. “Optimizing Treatment of Nonconvulsive Status Epilepticus.” American Epilepsy Society Annual Meeting, Orlando, FL (2023)
18. “Collaborating with Industry.” American Clinical Neurophysiology Society Annual Meeting, Orlando, FL (2024)
19. “Quantitative EEG.” American Clinical Neurophysiology Society Annual Meeting, Orlando, FL (2024)
20. “The EEG Map of Everything (MOE).” Critical Care EEG Monitoring Research Consortium Meeting, Orlando, FL (2024)
21. “AI in ICU EEG.” American Epilepsy Society Annual Meeting, Los Angeles, CA (2024)
- 22.

International Meetings:

1. “Opportunities for Intelligent Computing in Clinical Neurophysiology.” Nanyang Technical University Symposium on Novel Technologies for Clinical Practice in Neurology, Singapore (2012)
2. “Real-Time Measurement and Closed-Loop Control of Burst Suppression.” IEEE Engineering in Medicine and Biology Society Conference, Osaka, Japan (2013)
3. “Optimizing the Treatment of Refractory Status Epilepticus.” Networks in Epilepsy Conference, Beijing, China (2015)
4. “Engineering in Neurocritical Care: Modeling & Control of Refractory Status Epilepticus.” International Symposium on EEG Signal Analysis, Xi’an, China (2015)
5. “Quantitative Electroencephalography for Detection of Seizures and Ischemia.” Beijing ICU Neuroelectrophysiological Monitoring Forum, Beijing, China (2015)
6. “Why Brains Need Computers: How Machine Learning and Big Data Can Help Neurology.” Extreme Learning Machines Annual Conference, Singapore (2016)
7. “Machine Learning in Neurocritical Care.” Northwestern University International Forum on Big Data in Healthcare, Xi’an, China (2017)
8. “Quantitative EEG: Detecting Ischemia and Seizures.” International Congress of Clinical Neurophysiology, Washington, DC (2018)
9. “Removing the Confusion from Toxic-Metabolic Encephalopathy.” University of Twente Mini-Symposium, Enschede, Netherlands (2018)
10. “Mapping the Ictal–Interictal–Injury Continuum.” Neurocritical Care Society Annual Meeting, Vancouver, Canada (2019)
11. “Superhuman Detection of Seizures, Rhythmic and Periodic Patterns in ICU EEG.” International Congress on Clinical Neurophysiology (ICCN), Geneva, Switzerland (2022)
12. “Quantifying the Ictal–Interictal Continuum.” International Conference on Technology and Analysis for Seizures (ICTALS), Bern, Switzerland (2022)
13. “Denoising the Diagnosis of Epilepsy.” AI in Epilepsy Conference, Breckenridge, CO (2025)
14. “MORGOTH: Automating the Interpretation of Clinical Neurophysiology Tests.” International Conference on Technology and Analysis for Seizures (ICTALS), Montreal, Canada (2025)
15. “Data-Driven Biomarkers for Brain Health from Sleep.” SLEEP 2025 Annual Meeting, Seattle, WA (2025)
16. “Artificial Intelligence in Neurology: Promise and Peril.” Donald Baxter Lecture, Montreal Neurological Institute, Montreal, Canada (2025)

IX. TEACHING

Teaching during Stanford appointment:

None.

Teaching prior to Stanford:

Courses

2001–2002	Instructor for Computational Neuroscience, Washington University School of Medicine, Department of Anatomy and Neurobiology.
2003	Instructor for Detection and Estimation Theory, Washington University, Department of Electrical and Systems Engineering.
2004	Instructor for Information Theory, Washington University, Department of Electrical and Systems Engineering.
2008–2009	Instructor for Neuroanatomy Laboratory, Harvard Medical School.
2012–2025	Lecturer for Medical Decision Analysis and Diagnostic Test Interpretation (HST-192.0), Harvard–MIT Program in Health Sciences and Technology.
2013–2017	Course Director and Lecturer for Medical Decision Analysis and Diagnostic Test Interpretation (HST-192.0), Harvard–MIT Program in Health Sciences and Technology.

Tutorials and Lectures

10/2009	Granger Causality Analysis Techniques for EEG Data. Clinical Neurophysiology Research Group, MGH, Boston, MA.
5/2010	Synchronization Likelihood for Functional Connectivity Analysis of EEG Data. Clinical Neurophysiology Research Group, MGH, Boston, MA.
7/2008	Probability in Medical Reasoning. Neurology Residents, Brigham and Women’s Hospital, Boston, MA.
9/2009	Invited lecturer, Bayes’ Rule for Physicians. Partners Neurology, MGH/BWH, Boston, MA.
6/2010	EEG Alphabet Soup: GCSE, NCSE, PLEDs, BIPLEDs, GPEDs, & DEADs. Partners Neurology, MGH/BWH, Boston, MA.
8/2011	Status Epilepticus: Diagnosis and Management. Partners Neurology, MGH/BWH, Boston, MA.
9/2012	Introduction to ICU EEG: Seizures, Spikes, PEDs, Ischemia, and Coma. Partners Neurology, MGH/BWH, Boston, MA.
7/2018	Quantitative Electroencephalography. Neurophysiology and Epilepsy Fellows, MGH Epilepsy Division, Boston, MA.
7/2019	Recognizing Seizures and Ischemia in Critical Care EEG Monitoring. Neurophysiology and Epilepsy Fellows, MGH Epilepsy Division, Boston, MA.
6/2020	Emergency Electroencephalography. Emergency Medicine Residents, Massachusetts General Hospital, Boston, MA.
7/2020	Introduction to Spectrograms in ICU EEG. Neurophysiology and Epilepsy Fellows, MGH Epilepsy Division, Boston, MA.

Clinical Supervisory and Training

2012–	Supervisor, MGH Adult Epilepsy Clinic (½-day session per week).
2012–	Attending Physician, MGH Inpatient Neurology Service (2-week block per year), supervising neurology residents and Harvard medical students.
2012–	Attending Physician, MGH General Neurology Consult Service (2-week block per year), supervising neurology residents.
2012–	Director, MGH Critical Care EEG Monitoring Service (≈10 weeks per year), supervising Epilepsy and Clinical Neurophysiology Fellows.
2012–	Attending, MGH Epilepsy Monitoring Unit (≈6 weeks per year), supervising Epilepsy and Clinical Neurophysiology Fellows.
2012–	Faculty, Outpatient EEG Reading Service (≈2 days per month), supervising Epilepsy and Clinical Neurophysiology Fellows.

Research Supervisory and Training Responsibilities

- 2012– Supervisor of postdoctoral research fellows (average 5–10 fellows per year), Massachusetts General Hospital.
- 2012– Supervisor of graduate students (average 2–4 per year), Massachusetts General Hospital and MIT.

X. TRAINEES

Postdoctoral Fellows

- 2013-2014 Jing Jin, PhD from NTU in Singapore. postdoctoral fellow at MGH
- 2013-2014 Zhang Rui, PhD, visiting scholar from NTU in Singapore, mentoring for 2 months through present. Professor of Mathematics at Northwestern University, Xi'An, China
- 2014-2018 Sunil Belur Nagaraj, PhD, electrical engineering postdoctoral fellow. an Assistant Professor at University of Groningen, Department of Clinical Pharmacology, Groningen, Netherlands
- 2014- Lauren McClain, PhD. Research Fellow. a PhD student at Fordham University, New York
- 2019- Eline Oppersma, PhD. Visiting scholar. Assistant Professor of Technical Medicine at University of Twente, Netherlands
- 2019- WenDong Ge, PhD. Postdoctoral fellow.
- 2015–present Sahar Zafar, MD (K23).
- 2014–2020 Jennifer Kim, MD, PhD (K23).
- 2014–2019 Edilberto Amorim, MD (K23).
- 2019–present Marta Priscila Bento Fernandes, PhD.
- 2020–2022 Rajesh Amerineni, PhD.
- 2019–2022 Wendong Ge, PhD.
- 2019–2022 Weilong Zheng, PhD.
- 2022–2024 Yalda Amidi, PhD.
- 2021–2023 Samaneh Nasiri, PhD.
- 2019–present Wolfgang Ganglberger, PhD.
- 2024–present Shadi Sartipi, PhD.
- 2024–present Alexandra Tautan, PhD.
- 2024–present Ayush Tripathi, PhD.
- 2024–present Samuel Waters, PhD.
- 2024–present ChenXi Sun, PhD.
- 2024–present Charlotte Maschke, PhD.
- 2024–present Bruce Nearing, PhD.
- 2024–present Ayan Mitra, PhD.
- 2016–2018 Sungtae An, MS / PhD.
- 2016–present Haoqi Sun, MD.
- 2013–present Jing Jin, PhD.

Graduate Students

- 2014- Mohammed Ghassemi, MIT PhD candidate (now graduated), mentorship resulted in Advanced Multimodal Neuroimaging Training Program (AMNTP) fellowship award, 3 published manuscripts. CEO of a startup company, Ghamut
- 2014- Jingzhi An, PhD candidate at Harvard/MIT HST program.
- 2014-2019 Moura, Junior Valdery, MS (computer science), programmer analyst / research assistant at MGH. Project: establishing a database for the Clinical Data Animation Center (CDAC). 3 peer-reviewed publications to d. Project Manager for Landmark Project #4 at Partners Healthcare

2014-2017 Apeksha Shenoy, MS (electrical engineering), programmer analyst / research assistant. a Senior Consultant at Boston Strategic Partners

2015- Elham Bagheri, MS (electrical and systems engineering). Nanyang Technical University (NTU), Singapore, PhD candidate, co-supervised with Prof.

2015- John Thomas, MS (electrical and systems engineering). Nanyang Technical University (NTU), Singapore, PhD candidate, co-supervised with Prof.

2015-2016 Siddharth Biswal, MS, computer programmer / research assistant. a PhD candidate at Georgia Institute of Technology

2015- Gladia Hotan, PhD candidate at MIT. Mentorship resulted in 2 publications to date.

2015-2016 Ellis Wickerling, MS, University of Twente, Netherlands. working as an computer programmer at Prolira

2016- Jefferson T, Oliva, PhD candidate in University of Sao Paulo, Brazil, Institute of Mathematics and Computer Sciences.

2016- Jord Vink, MS, University of Twente, Netherlands, 3 month research internship with me at MGH, co-mentored with Dr. working at Brain Science Tools, Netherlands

2016- Wei-Hung Sun, MD, masters student in the Harvard Biomedical Informatics program. a PhD candidate at MIT in computer science

2016- Manohar Ghanta, MS (computer science). Computer engineer / research assistant.

2016- Yu-Ping Shao, MS (computer science). Computer engineer / data scientist / research assistant.

2016- Sungtae An, MS (computer science). Georgia Tech PhD candidate, co-supervised with Dr.

2016- Kunal Malhotra, MS (computer science). Georgia Tech (GAT) PhD candidate, co-supervised with Dr.

2016- Haoqi Sun, MD (computer science). Nanyang Technical University (NTU), Singapore, PhD candidate, co-supervised with Prof.

2016- Senan Ebrahim, MD, PhD student in the Harvard Medical School HST program; co-supervised with Dr.

2016-2017 Sophia Bechek, research assistant. a PhD candidate at Stanford

2016-2018 Balaji Goparaju, MSc. a Data Scientist at Novartis Institutes for BioMedical Research (NIBR)

2016- Jiang Ling Song, MS (mathematics), Northwestern University, Xian, China.

2017 Dennis Rebergen, Research internship.

2017- Emile d'Angremont, Research internship.

2017-2018 Peiyun Ni, MD/PhD candidate at Harvard Medical School / MIT. Project: Antiepileptic drug treatment after an unprovoked first seizure: A decision analysis.

2016-2017 Nishant Sinha, PhD candidate (now graduated) at NTU, Singapore, department of computer science.

2018- Qiang Li, PhD candidate in Mathematics, Northwestern University, Xi'An, China.

2018-2019 Kicky van Leeuwen, Masters student in Technical Medicine from U. Twente, Netherlands. a Medical Machine Learning Scientist at Medix

2018- Michael Leone, MSc.

2014–2020 Jingzhi An, PhD.

2014–2019 Mohammad Ghassemi, PhD.

2016–2017 Jefferson T. Oliva, PhD.

2018–2020 Qiang Li, PhD.

2024–present Arnav Gupta.

2021–2025 Thijs Nassi, MSc.

Medical Students / Residents / Fellows

2011-2012	Mentorship for 4 months (2 summers), resulted in 4 scientific publications. Sarah Wahlster, MD, Neurology resident. Assistant Professor of Neurology at University of Washington
2011-2012	Craig Williamson, MD, Neurology resident, Mentorship for 1 year, resulted in 1 published scientific manuscript. Assistant Professor of Neurology at University of Michigan
2013-2014	Lidia Moura, MD, Epilepsy Fellow at MGH. Two abstracts, 1 published scientific manuscript. Assistant Professor at Harvard Medical School
2013-2014	Marcus Ng, MD, Epilepsy Fellow at MGH. One published manuscript. Assistant Professor at University of Manitoba, Winnipeg, Canada
2013-2014	Deirdre O'Rourke, MD, Epilepsy Fellow at MGH, mentorship for 1 year, resulted in 1 abstract and 1 published manuscript. Neurologist at Connolly Hospital Blanchardstown/ Beaumont Hospital Dublin
2013-2014	Sandipan Pati, MD, Epilepsy Fellow at MGH. 1 abstract, 2 published scientific manuscripts. Assistant Professor of Neurology at UAB Birmingham
2013-2014	Aaron Berkowitz, MD, PhD, neurology resident at BWH/MGH/Partners. Assistant Professor of Neurology at Harvard Medical School / Brigham and Women's hospital
2014	Vincent Alvarez, MD, visiting Research Fellow from Universite de Lausanne (Switzerland). 5 published manuscripts. an Attending Neurologist at Hopital du Valais, Sion, Switzerland
2014	Sanjay Menon, MD, Neurosciences ICU Fellow at MGH, mentorship for 6 months.
2014	Ammar Kheder, MD, Epilepsy Fellow at MGH, mentorship for 1 year. an Assistant Professor Of Clinical Neurology at U
2014-	Aaron Struck, MD, Epilepsy Fellow at MGH. 2 abstracts, 8 published manuscripts. Assistant Professor of Neurology at University of Wisconsin
2014-2016	Gina Deck, MD, Epilepsy Fellow at MGH, mentorship for 1 year. an Assistant Professor of neurology at The Warren Alpert Medical School of Brown University
2014-	Edilberto Amorim, MD, neurointensive care fellow at MGH. Research on the prognostic value quantification of EEG reactivity in coma in patients with anoxic brain injury.
2014-	Jennifer Kim, MD, PhD, neurology resident at MGH/BWH. Project: "Identifying EEG Hallmarks for Increased Seizure Risk in SAH: A Quantitative EEG Analysis." Starting in July 2019, will be Assistant Professor of Neuro.
2014-2017	Katherine O'Connor, Project: Predicting delayed cerebral ischemia in patients with aneurysmal subarachnoid hemorrhage.
2015-	Sahar Zafar, MD, neurointensive care fellow at MGH. Research on the impact of pathological brain activity and its treatments on neurological outcome in ICU patients.
2015-2017	Carlos Muniz, MD. Epilepsy / Neurophysiology Fellow. a practicing neurologist in Towson, Maryland
2016-	Ilya Toloch, MD, PhD, neurology resident at BWH/MGH/Partners.
2016-2016	Eva Postma, MD, University of Twente, Netherlands, visiting scholar for 6 months in my laboratory, co-mentored by Dr.
2016-2017	Jia Jian, PhD (mathematics), Northwestern University (NWU), Xian, China. an Associate Professor of Mathematics at NWU
2016	Honghui Zhang, PhD (mathematics), Northwestern University, Xian, China.

2014-2018 Durga Jonnalagadda, MD, Projects: Diagnosing severity of delirium in hospitalized patients from EEG recordings.

2017- Aline Herlopian, MD. Fellow in Clinical Neurophysiology and Epilepsy at Harvard Medical School, MGH. Projects: Characterizing EEG patterns in patients with CAR-T cell encephalopathy, and Measuring expert inter-rater a. Assistant Professor of Neurology at Yale

2017- Hassan Aboul Nour, MD. Project: Estimating the effect of exposure to inadvertent pharmacological burst suppression during critical illness on neurologic outcomes.

2017-2018 Elahe Bordbar, MD. Research Fellow. a Resident in Neurology at Temple University

2017- Muhammad Edhi, MD. Research Fellow.

2017- Farrukh Javed, MD. Research Fellow. a Neurology Resident at University of Virginia

2017- Solomon Kassa, MD. Research Fellow.

2017-2019 Maryum Shoukat, MD. Research Fellow.

2017- Mohammad Tabaeizadeh, MD. Research Fellow.

2017-2018 Erik Bao, MD candidate in the Harvard/MIT Health Sciences & Technology.

2017-2018 Monica (Ling-Ya) Chao, MD candidate in Harvard HST program.

2018- Kendrick Shaw, MD, PhD. Anesthesia Resident and incoming faculty (Instructor) at Harvard Medical School / MGH. Project: Predicting delirium using electronic health record data.

2018- Chris McGray, MD, PhD. Fellow in Epilepsy and Clinical Neurophysiology.

2018- Sophia Ryan, MD. Harvard Medical School/CRICO Patient Safety and Quality Fellow at Harvard Medical School.

2018- Benjamin Grannan, MD. Resident in Neurosurgery at Harvard Medical School / MGH. Project: Deep learning analysis of CT images to detect cases in need of surgical intervention.

2019- Eliezer Sternberg, MD. Fellow in Epilepsy and Clinical Neurophysiology.

2014–2015 Elliott Akama-Garren.

2014–2020 Jennifer Kim, MD, PhD.

2018–present Eyal Kimchi, MD, PhD (K23).

2022–present Daniel Goldenholz, MD, PhD (K23).

2022–present Peter Hadar, MD, PhD.

2022–2025 Wan Yee Kong, MD, MSc.

2022–present James Lucarelli, MD, PhD.

2023–present Callison Alcott, MD, PhD.

2011–2012 Sarah Wahlster, MD.

2011–2012 Craig Williamson, MD.

2013–2014 Lidia Moura, MD.

2013–2014 Marcus Ng, MD.

2013–2014 Patrick Chen, MD.

2013–2014 Deirdre O’Rourke, MD.

2013–2014 Sandipan Pati, MD.

2013–2014 Ammar Kheder, MD.

2013–2014 Aaron Berkowitz, MD, PhD.

2017–2019 Luis Paixao, MD.

2017–present Aline Herlopian, MD.

2020–2021 Nitish Harid, MD.

Undergraduate Students

2010; 2011 Nathaniel Eiseman, Senior at Tulane.

2012	Matthew Ferguson, sophomore at Washington University in Saint Louis.
2012	Justine Cormier, BS, medical student at Boston University School of Medicine. Neurology Resident at Yale
2014	Elliot Akama-Garren, MIT undergraduate, mentorship for 6 months; resulted in 1 publication. an MD-PhD student at Harvard Medical School
2016- 2017	Greta Gadbois, BS (mathematics), research assistant. Wade Whitt, undergraduate student at BYU. Projects: Correlation of EEG findings in delirious patients with neurologic outcomes.
2018-	Jacob Hogan, undergraduate student at BYU. Project: Estimating the causal effect of burst suppression on neurologic outcomes.
2018–2023	Alek Westover.
2021–2022	Danny Jones.
2021–2022	Jaden Barfuss.
2021–2023	Jayme Banks.
2023–2024	Leia Jekel.
2023–2024	Rebecca Milde.
2023–2024	Moritz Alkofer.
2023–2024	Elijah Davis.
2023–present	Dan Sumsion.
2023–present	Lydia Petersen.
2023–present	Kiwi (Yiwen) Xiong.
2024–present	Luke Jackson.
2024–present	Carlos Nuñez-Sosa.
2024–present	Amber Peng.
2024–present	Mitchell McCauley.
2024–present	Patrick Wynn.
2024–present	Elijah Keldsen.

High School Students

2018	Alek Westover, High school student.
2016–2017	Sophia Bechek.
2023–2024	Samvrit Rao.