Raha Dastgheyb 05/29/2026

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

Hospital

2022-present Assistant Professor, Department of Neurology, School of Medicine, Johns Hopkins University, Baltimore, MD

University

2025 – present Affiliate Faculty, Data Science and AI Institute, Johns Hopkins University, Baltimore, MD
2025 – present Member, Institute for Data Intensive Engineering and Science (IDIES), Johns Hopkins University, Baltimore MD

Personal Data

Department of Neurology
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Education and Training

Undergraduate

2004 - 2008 B.S., Biomedical Engineering, minor Computer Science, University of Virginia, Charlottesville, VA *Thesis: Evaluation of a Device for Quantification of Spasticity in Cerebral Palsy*

Doctoral/graduate

2008 - 2015 Ph.D., Biomedical Engineering, Drexel University, Philadelphia PA, *Thesis: Mechanisms of Axonal Pathology in Traumatic Brain Injury*

Postdoctoral

2015 - 2016 Post-Doctoral Fellow, Drexel University, School of Biomedical Engineering, Science & Health Systems, Cellular Mechanics Lab, Philadelphia, PA
2016 – 2019 Post-Doctoral Fellow, Department of Neurology, School of Medicine, Johns Hopkins University, Baltimore, MD

Professional Experience

2019 – 2020 Research Associate, Department of Neurology, School of Medicine, Johns Hopkins University/Baltimore, MD
2020 – 2022 Instructor, Department of Neurology, School of Medicine, Johns Hopkins University/ Baltimore, MD

PUBLICATIONS:

Original Research [OR] [*including Research Letters and Brief Reports; multi-authored clinical trials, experimental studies (including in vivo, in vitro, in silico studies), educational research, systematic reviews (e.g. Cochrane, IOM), meta-analyses)*]. *Please indicate your role in multiauthored articles, if not first or senior author.*

1. **Dastgheyb, R**., & Gordeuk, V. (2005). Pulmonary hypertension in Chuvash polycythemia. *Ethnicity and Disease*, *15*(3 SUPPL. 4).
2. Chaudhuri, A. D., **Dastgheyb, R. M.**, Yoo, S. W., Trout, A., Talbot Jr, C. C., Hao, H., ... & Haughey, N. J. (2018). TNFα and IL-1β modify the miRNA cargo of astrocyte shed extracellular vesicles to regulate neurotrophic signaling in neurons. *Cell death & disease*, *9*(3), 1-18. *I was responsible for the all of the electrophysiology experiments, analysis, and visualization*
3. Miller SJ, Philips T, Kim N, **Dastgheyb R**, Chen Z, Hsieh YC, Daigle JG, Datta M, Chew J, Vidensky S, Pham JT, Hughes EG, Robinson MB, Sattler R, Tomer R, Suk JS, Bergles DE, Haughey N, Pletnikov M, Hanes J, Rothstein JD. (2019). Molecularly defined cortical astroglia subpopulation modulates neurons via secretion of Norrin. *Nature neuroscience*, *22*(5), 741-752. *I was responsible for the all of the electrophysiology experiments, analysis, and visualization*
4. Taga A, **Dastgheyb R**, Habela C, Joseph J, Richard JP, Gross SK, Lauria G, Lee G, Haughey N, Maragakis NJ. (2019). Role of Human-Induced Pluripotent Stem Cell-Derived Spinal Cord Astrocytes in the Functional Maturation of Motor Neurons in a

Multielectrode Array System. *Stem cells translational medicine*, *8*(12), 1272-1285. *I participated in all of the electrophysiological experiments and programmed the software to do the analysis*

5. Rubin LH, Saylor D, Nakigozi G, Nakasujja N, Robertson K, Kisakye A, Batte J, Mayanja R, Anok A, Lofgren SM, Boulware DR, **Dastgheyb R**, Reynolds SJ, Quinn TC, Gray RH, Wawer MJ, Sacktor N. (2019). Heterogeneity in neurocognitive change trajectories among people with HIV starting antiretroviral therapy in Rakai, Uganda. *Journal of neurovirology*, *25*(6), 800-813.
6. **Dastgheyb** RM, Sacktor N, Franklin D, Letendre S, Marcotte T, Heaton R, Grant I, McArthur JC, Rubin LH, Haughey NJ. (2019). Cognitive trajectory phenotypes in human immunodeficiency virus infected patients. *Journal of acquired immune deficiency syndromes*, *82*(1), 61. *This is one of the first papers looking at cognitive trajectory in people with HIV*
7. Chen S, Datta-Chaudhuri A, Deme P, Dickens A**, Dastgheyb R,** Bhargava P, Bi H, Haughey NJ. (2019). Lipidomic characterization of extracellular vesicles in human serum. *Journal of circulating biomarkers*, *8*, 1849454419879848. *I designed and wrote the software to identify and filter the lipids meeting reproducibility criteria from the raw mass spec data*
8. Rubin LH, Li Y, Fitzgerald KC, **Dastgheyb** R, Spence AB, Maki PM, Sharma A, Gustafson DR, Milam J, Weber KM, Adimora AA, Haughey NJ, Ofotokun I, Fischl MA, Konkle-Parker D, Xu Y, Williams DW. (2020). Associations between Antiretrovirals and Cognitive Function in Women with HIV. *Journal of Neuroimmune Pharmacology*, 1-12.
9. Jha MK, Lee Y, Russell KA, Yang F, **Dastgheyb R**, Deme P, Ament XH, Chen W, Liu Y, Guan Y, Polydefkis MJ, Hoke A, Haughey NJ, Rothstein JD, Morrison BM. (2020). Monocarboxylate transporter 1 in Schwann cells contributes to maintenance of sensory nerve myelination during aging. *Glia*, *68*(1), 161-177. *I was responsible for the lipidomic analysis and visualization*
10. Williams DW, Li Y, **Dastgheyb R**, Fitzgerald KC, Maki PM, Spence AB, Gustafson DR, Milam J, Sharma A, Adimora AA, Ofotokun I, Fischl MA, Konkle-Parker D, Weber KM, Xu Y, Rubin LH. (2020). Associations between antiretroviral drugs on depressive symptomatology in homogenous subgroups of women with HIV. *Journal of Neuroimmune Pharmacology*, 1-14. *I participated in manuscript discussions and review and created the abstract figure*
11. Rubin LH, Xu Y, Norris PJ, Wang X, **Dastgheyb R**, Fitzgerald KC, Keating SM, Kaplan RC, Maki PM, Anastos K, Springer G, Benning L, Kassaye S, Gustafson DR, Valcour VG, Williams DW. (2020). Early Inflammatory Signatures Predict Subsequent Cognition in Long-Term Virally Suppressed Women With HIV. *Frontiers in integrative neuroscience*, *14*, 20.
12. Li Z, Moniruzzaman M, **Dastgheyb RM**, Yoo SW, Wang M, Hao H, Liu J, Casaccia P, Nogueras-Ortiz C, Kapogiannis D, Slusher BS, Haughey NJ. (2020). Astrocytes deliver CK1 to neurons via extracellular vesicles in response to inflammation promoting the translation and amyloidogenic processing of APP. *Journal of extracellular vesicles*, *10*(2), e12035. *I created the software to quantify the tri-color colocalization*
13. Fitzgerald KC, Maki PM, Xu Y, Jin W, **Dastgheyb R**, Williams DW, Springer G, Anastos K, Gustafson D, Spence AB, Adimora AA, Waldrop D, Vance DE, Bolivar H, Valcour VG, Rubin LH. (2020). Factors Predicting Detrimental Change in Declarative Memory Among Women With HIV: A Study of Heterogeneity in Cognition. *Frontiers in psychology*, *11*, 2606.
14. Kamkwalala AR, Wang K, O'Halloran J, Williams DW, **Dastgheyb R,** Fitzgerald KC, Spence AB, Maki PM, Gustafson DR, Milam J, Sharma A, Weber KM, Adimora AA, Ofotokun I, Sheth AN, Lahiri CD, Fischl MA, Konkle-Parker D, Xu Y, Rubin LH. (2021). Starting or switching to an integrase inhibitor-based regimen affects PTSD symptoms in women with HIV. *AIDS and Behavior*, *25*(1), 225-236.
15. ***Dastgheyb, R. M.,** Yoo, S. W., & Haughey, N. J. (2020). MEAnalyzer–a Spike Train Analysis Tool for Multi Electrode Arrays. *Neuroinformatics*, *18*(1), 163-179. ***Corresponding Author**
16. Rubin LH, Sundermann EE, **Dastgheyb R**, Buchholz AS, Pasipanodya E, Heaton RK, Grant I, Ellis R, Moore DJ. (2020). Sex Differences in the Patterns and Predictors of Cognitive Function in HIV. *Frontiers in neurology*, *11*. *I was responsible for the clustering analysis and visualization*
17. Rubin LH, Gustafson DR, Warrior L, Sheira L, Fitzgerald KC**, Dastgheyb R,** Weber KM, Tien PC, French A, Spence AB, Sharma A, Williams DW, White CJ, Seaberg EC, Frongillo EA, Weiser SD . Dietary intake is associated with neuropsychological impairment in women with HIV. *The American Journal of Clinical Nutrition*.
18. Aparicio J, Xu Y, Li Y, Colantuoni C, **Dastgheyb R**, Williams DW, Asahchop EL, McMillian JM, Power C, Fujiwara E, Gill MJ, Rubin LH. (2021). Plasma microRNAs are associated with domain-specific cognitive function in people with HIV. *AIDS*.
19. O'Halloran JA, Wang K, Spence AB, Williams DW, **Dastgheyb R**, Fitzgerald KC, Kamkwalala AR, Maki PM, Sharma A, Gustafson DR, Milam J, Weber KM, Adimora AA, Ofotokun I, Fischl MA, Konkle-Parker D, Lahiri CD, Sheth AN, Xu Y, Rubin LH. (2021). Integrase Strand Transfer Inhibitor Start or Switch Impacts Learning in Women With HIV. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, *86*(5), 593-599.
20. **Dastgheyb RM,** Buchholz AS, Fitzgerald KC, Xu Y, Williams DW, Springer G, Anastos K, Gustafson DR, Spence AB, Adimora AA, Waldrop D, Vance DE, Milam J, Bolivar H, Weber KM, Haughey NJ, Maki PM, Rubin LH. (2021). Patterns and Predictors of Cognitive Function Among Virally Suppressed Women With HIV. Frontiers in neurology, 12. *This paper was the introduction of a novel pipeline to identify cognitive phenotypes from within a heterogeneous set of data and has been the basis of multiple other publications and grants*
21. Rubin LH, O'Halloran JA, Williams DW, Li Y, Fitzgerald KC, **Dastgheyb R**, Damron AL, Maki PM, Spence AB, Sharma A, Gustafson DR, Milam J, Weber KM, Adimora AA, Ofotokun I, Fischl MA, Konkle-Parker D, Xu Y. (2022). Integrase Inhibitors are Associated with Neuropsychiatric Symptoms in Women with HIV. *Journal of Neuroimmune Pharmacology*.
22. Almad AA, Taga A, Joseph J, Gross SK, Welsh C, Patankar A, Richard JP, Rust K, Pokharel A, Plott C, Lillo M, **Dastgheyb R**, Eggan K, Haughey N, Contreras JE, Maragakis NJ. (2022). Cx43 hemichannels contribute to astrocyte-mediated toxicity in sporadic and familial ALS. *Proceedings of the National Academy of Sciences. I participated in all of the electrophysiological experiments and programmed the software to do the analysis.*
23. Williams, D. W., Flores, B. R., Xu, Y., Wang, Y., Yu, D., Peters, B. , Adedimeji, A., Wilson, T., Merenstein, D., Tien, P., Cohen, M., Weber, K., Adimora, A., Ofotokun, I., Fischl, M., Turan, J., Turan, B., Laumet, G., Landay, A., **Dastgheyb, R.**, Gange, S.,

Weiser, S., Rubin, L. H. (2022). T-cell activation state differentially contributes to neuropsychiatric complications in women with HIV. *Brain, Behavior, & Immunity-Health*, 25, 100498.

24. Yoo-Jeong M, **Dastgheyb RM**, Shorer EF, Demsky C, Fox O, Inaganti D, Kanner S, Neijna AG, Buchholz A, Wilson TE, & Rubin LH. Emotional Loneliness Is Related to Objective Cognitive Function in Older People With HIV in the Washington-Baltimore Area: A Cross-sectional Study. J Assoc Nurses AIDS Care. 2024 Nov-Dec;35(6):519–529. doi:10.1097/JNC.0000000000000491
25. Mukerji SS, Petersen KJ, Pohl KM, **Dastgheyb RM**, Fox HS, Bilder RM, Brouillette MJ, Gross AL, Scott-Sheldon LAJ, Paul RH, Gabuzda D. Machine Learning Approaches to Understand Cognitive Phenotypes in People With HIV. J Infect Dis. (2023). Machine learning approaches to understand cognitive phenotypes in people with HIV. *The Journal of infectious diseases*, 227(Supplement_1), S48-S57. *The manuscript is partly based on my work and presentation at the biotypes meeting.*
26. Rubin, L.H., Du, Y., Sweeney, S.E., O'Toole, R., Harrington, C.K., Jenkins, K., Lesniak, W.G., Veenhuis, R.T., **Dastgheyb, R.,** Severson, J. and Fan, H., 2023. Pilot imaging of the colony stimulating factor 1 receptor in the brains of virally-suppressed individuals with HIV. *AIDS*, pp.10-1097.
27. Rubin LH, Maki PM, **Dastgheyb RM**, Steigman PJ, Burke-Miller J, Xu Y, Jin W, Sosanya O, Gustafson D, Merenstein D, Milam J, Weber KM, Springer G, Cook JA. (2023). Trauma Across the Life Span and Multisystem Morbidity in Women With HIV. *Psychosomatic medicine, 85*(4), 341-350.
28. Rubin LH, Du Y, Sweeney SE, O'Toole R, Harrington CK, Jenkins K, Lesniak WG, Veenhuis RT, **Dastgheyb R**, Severson J, Fan H, Holt DP, Hall AW, Dannals RF, Horti AG, Pomper MG, Coughlin JM. Pilot imaging of the colony stimulating factor 1 receptor in the brains of virally-suppressed individuals with HIV(2023). *AIDS*. Jul 15;37(9):1419-1424
29. Parra-Rodriguez, L., O'Halloran, J., Wang, Y., Jin, W., **Dastgheyb, R**. M., Spence, A. B., Sharma, A., Gustafson, D. R., Milam, J., Weber, K. M., Adimora, A. A., Ofotokun, I., Fischl, M. A., Konkle-Parker, D., Maki, P. M., Xu, Y., & Rubin, L. H. (2024). Common antiretroviral combinations are associated with somatic depressive symptoms in women with HIV. *AIDS* 38(2), 167–176.
30. **Dastgheyb, R.,** Sundermann, E. E., Moore, D. J., Buchholz, A. S., Bondi, M. W., Ellis, R. J., Letendre, S. L., Heaton, R. K., & Rubin, L. H. (2024). Identifying and distinguishing cognitive profiles among virally suppressed people with HIV. *Neuropsychology*, 38(2), 169–183.
31. Wiseman, R. L., Bigos, K. L**., Dastgheyb, R. M**., Barker, P. B., Rubin, L. H., & Slusher, B. S. (2024). Brain N -acetyl-aspartyl-glutamate is associated with cognitive function in older virally suppressed people with HIV. *AIDS*), 38(7), 1003–1011
32. Shorer, E. F., Rubin, L. H., French, A. L., Weber, K. M., Daubert, E., Yohannes, T., Morack, R., Clish, C., Bullock, K., Gustafson, D., Sharma, A., Rogando, A. C., Qi, Q., Burgess, H. J., & **Dastgheyb, R. M**. (2024). Tryptophan-kynurenine metabolic pathway and daytime dysfunction in women with HIV. *Journal of neurovirology*, 10.1007/s13365-024-01195-x.
33. Salimpour Y, Anderson WS**, Dastgheyb R**, Liu S, Ming GL, Song H, Maragakis NJ, Habela CW. Phase-amplitude coupling detection and analysis of human 2-dimensional neural cultures in multi-well microelectrode array in vitro. *J Neurosci Methods*. 2024 Jul;407:110127.
34. Tang B, Ellis RJ, Vaida F, Umlauf A, Franklin DR, **Dastgheyb RM**, Rubin LH, Riggs PK, Iudicello JE, Clifford DB, Moore DJ, Heaton RK, Letendre SL. Biopsychosocial phenotypes in people with HIV in the CHARTER cohort. Brain Communications. 2024;6(4):fcae224. doi:10.1093/braincomms/fcae224
35. Parra-Rodriguez L, O'Halloran J, Wang Y, Jin W, **Dastgheyb RM**, Spence AB, Sharma A, Gustafson DR, Milam J, Weber KM, Adimora AA, Ofotokun I, Fischl MA, Konkle-Parker D, Maki PM, Xu Y, & Rubin LH. Common antiretroviral combinations are associated with somatic depressive symptoms in women with HIV. AIDS. 2024;38(2):167–176. doi:10.1097/QAD.0000000000003730
36. Shorer EF, **Dastgheyb RM**, French AL, Daubert E, Morack R, Yohannes T, Clish C, Gustafson D, Sharma A, Rogando A, Qi Q, Burgess H, Rubin LH, Weber KM. Tryptophan–Kynurenine Pathway Activation and Cognition in Virally Suppressed Women With HIV. JAIDS Journal of Acquired Immune Deficiency Syndromes. 2024;96(5):494–500. doi:10.1097/QAI.0000000000003454
37. Vance DE, Xu Y, **Dastgheyb RM**, Maki PM, Zhang J, Springer G, Anastos K, Gustafson DR, Spence AB, Sharma A, Weber KM, Adimora AA, Waldrop D, Milam J, Bolivar H, & Rubin LH. Does cognitive intra-individual variability predict change in everyday functioning performance in women with and without HIV in the Women's Interagency HIV Study? *Applied Neuropsychology: Adult*. 2024;1–11. doi:10.1080/23279095.2024.2444573
38. Rubin LH, Shirk EN, Pohlenz L, Romero H, Roti E, **Dastgheyb RM**, Santiuste I, Coughlin JM, Brown TT, Clements JE, Veenhuis RT. Intact HIV reservoir in monocytes is associated with cognitive function in virally suppressed women with HIV. The Journal of Infectious Diseases. 2025;231(1):165–174. doi:10.1093/infdis/jiae460
39. Rubin LH, Cho K, Bolzenius J, Mannarino J, Easter RE, **Dastgheyb RM**, Anok A, Tomusange S, Saylor D, Wawer MJ, Nakasujja N, Nakigozi G & Paul R. Mental health phenotypes of well-controlled HIV in Uganda. Frontiers in Public Health. 2025;12:1407413. doi:10.3389/fpubh.2024.1407413
40. Lang L, Rubin LH, **Dastgheyb RM**, Vance DE, Letendre SL, Franklin DR Jr, Xu Y. Development of a refined harmonization approach for longitudinal cognitive data in people with HIV. Journal of Clinical Epidemiology. 2025;178:111620. doi:10.1016/j.jclinepi.2024.111620
41. Vance DE, Lang L, Maki PM, Yu D, **Dastgheyb RM**, Wang Y, Springer G, Anastos K, Gustafson DR, Weber KM, Dykxhoorn DM, Milam J, Diaz M, Kassaye SG, Waldrop D, Xu Y, Rubin LH. Cognitive Predictors of Everyday Functioning in Older Virally Suppressed Women with HIV in the Women's Interagency HIV Study. *Research Square*. 2025;rs.3.rs-6136690/v1. doi:10.21203/rs.3.rs-6136690/v1

42. Mukerji SS, Bachanová P, Park H, Rosen LV, Kashlan R, Kivisäkk P, Anderson AM, Chow FC, Wu K, **Dastgheyb RM**, Rubin LH, Tassiopoulos K, Parker RA, Hyle EP. Plasma Neurofilament Light Chain and Glial Fibrillary Acidic Protein as Biomarkers of Cognitive Decline in People With Human Immunodeficiency Virus. The Journal of Infectious Diseases. 2025;231(4):946–956. doi:10.1093/infdis/jiae623
43. Yoo-Jeong M, Easter RE, Coughlin JM, **Dastgheyb RM**, Langenecker SA, Molestina G, Patel J, Rucci S, Shorer EF, Thompson I, Woolsey A, Wilson TE, Rubin LH. Loneliness is related to facial emotion perception in people with HIV. Sci Rep. 2025 Jul 1;15(1):22370. doi: 10.1038/s41598-025-04237-4. PubMed PMID: 40595899; PubMed Central PMCID: PMC12215490.
44. Rubin LH, Shi W, Azola A, Bhattacharyya A, **Dastgheyb RM**, Wu J, Penna CD, Parker H, Santiuste I, Ehrenspeck A, Coughlin JM, Vannorsdall TD, Lu H, Veenhuis R. Blood-Brain barrier disruption in long COVID and cognitive correlates: A cross-sectional MRI study. Brain Behav Immun. 2025 Oct;129:989-999. doi: 10.1016/j.bbi.2025.07.024. Epub 2025 Jul 28. PubMed PMID: 40738266; PubMed Central PMCID: PMC12409700.
45. Zaikos TD, Guo H, Barrett A, **Dastgheyb R**, Rubin LH, Troncoso J, Morris M. Neuropathologic findings in a community-based autopsy cohort of older, virally suppressed, people with HIV. J Neuropathol Exp Neurol. 2025 Aug 29;. doi: 10.1093/jnen/nlaf102. [Epub ahead of print] PubMed PMID: 40880255.
46. Habela CW, Liu S, Taga A, Oddoye S, **Dastgheyb R**, Haughey N, Bergles DE, Song H, Ming GL, Maragakis NJ. Altered development and network connectivity in a human neuronal model of 15q11.2 deletion-related neurodevelopmental disorders. Transl Psychiatry. 2025 Aug 29;15(1):329. doi: 10.1038/s41398-025-03453-w. PubMed PMID: 40883268; PubMed Central PMCID: PMC12397418.
47. Lang L, Rubin LH, Ances BM, Anok A, Cooley S, **Dastgheyb RM**, Easter RE, Franklin DR Jr, Heaton RK, Letendre SL, Nakijozi G, Marcotte T, Paul R, Shorer EF, Tomusange S, Vance DE, Xu Y. International application of an optimized harmonization approach for longitudinal cognitive data in people with HIV. J Clin Epidemiol. 2025 Sep 11;188:111972. doi: 10.1016/j.jclinepi.2025.111972. [Epub ahead of print] PubMed PMID: 40945590.
48. Chandra A, Alt J, **Dastgheyb RM**, Veenhuis RT, Rais R, Coughlin JM, Slusher BS, Rubin LH. Associations between cerebrospinal fluid N-acetyl-aspartyl-glutamate (NAAG) and cognitive function in people with HIV. AIDS. 2025 Sep 18;. doi: 10.1097/QAD.0000000000004341. [Epub ahead of print] PubMed PMID: 40965153.
49. Korpela E, **Dastgheyb RM**, Letendre SL, Franklin DR Jr, Ma Q, Rubin LH, Xu Y. Longitudinal effects of polypharmacy on cognitive function in people with HIV. AIDS. 2025 Oct 9;. doi: 10.1097/QAD.0000000000004379. [Epub ahead of print] PubMed PMID: 41065446.
50. Li W, Rubin LH, Xu Y, Wang Y, **Dastgheyb R**, Ptacek T, Wang G, Kempf MC, Dionne JA, Konkle-Parker D, Li DY, Sheth A, Ofotokun I, Vance DE. Multiplexing Proteomic and Ingenuity Pathway Analysis of Attention/Working Memory in Virally Suppressed Women with HIV: A Feasibility Study. Diagnostics (Basel). 2025 Oct 21;15(20). doi: 10.3390/diagnostics15202649. PubMed PMID: 41153321; PubMed Central PMCID: PMC12562990.
51. Trunfio M, Scutari R, Fox V, Vuaran E, **Dastgheyb RM**, Fini V, Granaglia A, Balbo F, Tortarolo D, Bonora S, Perno CF, Di Perri G, Alteri C, Calcagno A. The cerebrospinal fluid virome in people with HIV: links to neuroinflammation and cognition. Front Microbiol. 2025 Nov 4;16:1704392. doi: 10.3389/fmicb.2025.1704392. PMID: 41262931; PMCID: PMC12623318.
52. Azola A, **Dastgheyb RM**, Easter R, Parker H, Della Penna C, Santiuste I, Schultz H, Ehrenspeck A, Veenhuis R, Rubin LH. Putting the PASC Score to the Test: Clinical vs. Statistical Accuracy in Long COVID Diagnosis. J Gen Intern Med. 2025 Nov 17. doi: 10.1007/s11606-025-10042-6. Epub ahead of print. PMID: 41249654.
53. Shorer EF, **Dastgheyb RM**, Rubin LH, Safonova A, Masters MC, Zaikos TD, Marais S, Robinson-Papp J. Parkinsonism in people with virally suppressed HIV. Lancet HIV. 2026 Mar;13(3):e194-e206. doi: 10.1016/S2352-3018(25)00262-0. Epub 2025 Nov 29. PMID: 41325757; PMCID: PMC13107370.
54. Chandra A, Alt J, **Dastgheyb RM**, Veenhuis RT, Rais R, Coughlin JM, Slusher BS, Rubin LH. Associations between cerebrospinal fluid N-acetyl-aspartyl-glutamate and cognitive function in people with HIV. AIDS. 2026 Jan 1;40(1):58-63. doi: 10.1097/QAD.0000000000004341. Epub 2025 Sep 17. PMID: 40965153.
55. Ridgeway K, Easter RE, Anok A, **Dastgheyb RM**, Langenecker SA, Mannarino J, Nakasujja N, Saylor D, Shorer EF, Tomusange S, Nakigozi G, Paul R, Rubin LH. Beyond accuracy: facial emotion perception bias in people with HIV in Uganda. J Neurovirol. 2026 Mar 2. doi: 10.1007/s13365-025-01290-7. Epub ahead of print. PMID: 41772354.
56. Rubin LH, Chandra A, Alt J, **Dastgheyb RM**, Romero H, Coughlin JM, Rais R, Veenhuis RT, Slusher BS. N-acetyl-aspartyl-glutamate connects neuroinflammatory signatures to attention and working memory in people with HIV. AIDS. 2026 Apr 1;40(4):532-535. doi: 10.1097/QAD.0000000000004407. Epub 2026 Feb 26. PMID: 41739081; PMCID: PMC13181819.
57. Rubin LH, Azola A, Yoo-Jeong M, **Dastgheyb RM**, Easter R, Ehrenspeck A, Coughlin JM, Vannorsdall TD, Veenhuis RT, Wilson TE. Cognitive sequala of loneliness in long COVID: Differential associations by loneliness subtypes. J Affect Disord. 2026 Apr 15;399:121101. doi: 10.1016/j.jad.2025.121101. Epub 2026 Jan 4. PMID: 41494551; PMCID: PMC12954788.
58. Rubin LH, Maki PM, Du Y, **Dastgheyb RM**, Nam H, Rowe SP, Lesniak WG, Minn I, Hall AW, Mathews WB, Kassiou M, Dannals RF, Kassaye SG, Brown TT, Pomper MG, Coughlin JM. Stability of the translocator protein 18 kDa density within cognitive circuits in brains of virally-suppressed people with HIV. AIDS. 2026 May 1;40(5):693-696. doi: 10.1097/QAD.0000000000004416. Epub 2026 Mar 26. PMID: 41891218.
59. Tejera CH, **Dastgheyb R**, Shorer EF, Lee S, Gustafson D, Sharma A, D'Souza G, Weber KM, Qi Q, Rubin LH, Fitzgerald KC. Metabolomic levels mediate the link between socioeconomic factors and changes in declarative memory in women with and without HIV. Brain Behav Immun Health. 2026 Mar 25;53:101223. doi: 10.1016/j.bbih.2026.101223. PMID: 41953582; PMCID: PMC13054399.

Review Articles [RA]

1. Wang S, Sun J**, Dastgheyb** RM, Li Z. Tumor-derived extracellular vesicles modulate innate immune responses to affect tumor progression (2022). *Frontiers in Immunology*.

Guidelines/Protocols, Consensus Statement, Expert Opinion, Consortium Articles [GL] Letters,

1. Morales Pantoja IE, Smirnova L, Muotri AR, Wahlin KJ, Kahn J, Boyd JL, Gracias DH, Harris TD, Cohen-Karni T, Caffo BS, Szalay AS, Han F, Zack DJ, Etienne-Cummings R, Akwaboah A, Romero JC, Alam El Din DM, Plotkin JD, Paulhamus BL, Johnson EC, Gilbert F, Curley JL, Cappiello B, Schwamborn JC, Hill EJ, Roach P, Tornero D, Krall C, Parri R, Sillé F, Levchenko A, Jabbour RE, Kagan BJ, Berlinicke CA, Huang Q, Maertens A, Herrmann K, Tsaioun K, **Dastgheyb R,** Habela CW, Vogelstein JT, Hartung T. (2023). First Organoid Intelligence (OI) workshop to form an OI community. *Frontiers in Artificial Intelligence*, 6. *I was a workshop member for the data analysis portion and participated in manuscript discussions and review. This workshop received a lot of press and launched a new Frontiers journal.*
2. Hartung, T., Smirnova, L., Morales Pantoja, I. E., Akwaboah, A., Alam El Din, D. M., Berlinicke, C. A., Boyd, L., Caffo, B., Cappiello, B, Cohen-Karni, T., Curley, J., Etienne-Cummings, **R., Dastgheyb, R.,** Gracias, D., H., Gilbert, F., Habela, C., Han F., Harris T., Herrmann K., Hill, E., Huang, Q., Jabbour, R., Johnson, E., Kagan, B., Krall, C, Levchenko, A., Locke, P., Maertens, A., Metea, M., Muotri, A., Parri,R., Paulhamus, B., Plotkin, J., Roach, P. , Romero, J., Schwamborn, J., Sillé, F., Szalay, A., Tsaioun, K., Tornero, D., Vogelstein, J., Wahlin, K., Zack, D. J. (2023). The Baltimore declaration toward the exploration of organoid intelligence. *Frontiers in Science*, 0. *I was a workshop member for the data analysis portion and participated in manuscript discussions and review. The workshop received a lot of press and launched a new Frontiers journal*

Other Publications: Suggested Additional Subcategory Titles: *May adjust as necessary for your specialty*

Proceedings Reports [PR]

1. **Dastgheyb, R. M.,** Gallo, G., & Barbee, K. A. (2014, June). SECONDARY MEMBRANE DAMAGE AND THE POTENTIAL FOR MEMBRANE-TARGETED NEUROPROTECTION. In *JOURNAL OF NEUROTRAUMA* (Vol. 31, No. 12, pp. A93-A93). 140 HUGUENOT STREET, 3RD FL, NEW ROCHELLE, NY 10801 USA: MARY ANN LIEBERT, INC.
2. Tavasoli, A., Andalibi, M. S. S., **Dastgheyb, R.,** Letendre, S., & Ellis, R. (2025, April). Systemic Inflammation and Its Impact on Comorbidities in People with HIV (PWH)(P8-10.001). In Neurology (Vol. 104, No. 7_Supplement_1, p. 3197). Hagerstown, MD: Lippincott Williams & Wilkins.

Media Releases or Interviews [MR] *(show by: Date Details)*

2023 Move over, artificial intelligence: Scientists announce a new 'organoid intelligence' field. CNN. March 2, 2023. Available at: https://www.cnn.com/2023/03/02/world/brain-computer-organoids-scn

2023 Could future computers run on human brain cells? *Hub, Johns Hopkins University*. February 28, 2023. Available at: https://hub.jhu.edu/2023/02/28/organoid-intelligence-biocomputers/

2023 Roadmap shows how 'wetware' can power AI computers. eeNews Europe Technology News. February 28, 2023. Available at: https://www.eenewseurope.com/en/roadmap-shows-how-wetware-can-power-ai-computers/

2023 Biocomputing With Mini-Brains as Processors Could Be More Powerful Than Silicon-Based AI. Singularity Hub. March 7, 2023. Available at: https://singularityhub.com/2023/03/07/biocomputing-with-mini-brains-as-processors-could-be-more-powerful-than-ai

2024 Making Brain Studies More Efficient. Johns Hopkins University Whiting School of Engineering News. January 29, 2025. Available at: https://engineering.jhu.edu/news/making-brain-studies-more-efficient/

Other Media [OM] (Videos, Websites, Blogs, Social Media, etc.) *(show by: Date Details)*

02/2025 **Website:** https://rdastgh1.github.io/SciDataReportR/- website for *SciDataReportR*, an R toolkit that streamlines reproducible scientific data reporting with EDA helpers, tidy summary tables, codebook/data-dictionary utilities, and visualization aids

07/2018 **Website:** https://www.mathworks.com/matlabcentral/fileexchange/68260-meanalyzer— Mathworks FileExchange forMEAnalyzer, a stand-alone GUI (MATLAB not required) for multi-electrode array spike-train analysis: import across layouts, crop time windows, compute electrode/network metrics, visualize rasters & plate-wide activity, detect bursts/correlations, and export publication-ready figure

FUNDING

EXTRAMURAL Funding (*Show as current, pending, previous under each subcategory and follow format above.*)

Current

01/04/22 – 2/28/27 JHU Center for the Advancement of HIV Neurotherapeutics
R01NS133005

NIH
Award: $1,499,981 (annual direct)
Multi-PI: Rubin, Slusher, Clements
Role: Biomarker Core Co-director (10%)

01/04/22 – 2/28/27 JHU Center for the Advancement of HIV Neurotherapeutics
P30MH075673
NIH/NIMH
Award: $3,519,198 (total)
PI: Fitzgerald
Role: Co-investigator

04/01/19—2/31/25 Clinical Research Sites for the MACS/WIHS Combined Cohort Study (MACS-WIHS-CCS)—Baltimore/Wash DC Center
U01HL146201
NIH/NIAID
Multi-PI: Margolick/Brown
Role: Co-investigator 10%

08/01/19—6/01/26 Mental health and cognition in HIV infection in Rakai Uganda
U01HL146201
NIH/NIMH
Award: $2,919,706
Multi-PI: Paul/Rubin
Role: Co-investigator 6%

7/1/20-7/30/26 Polypharmacy, Neurotoxicity, and Aging in Adults living with HIV
R01AG063659
NIH/NIA
Award: $4,076,182
MPI: Ma, Letendre, Rubin
Role: Co-investigator , 20%

5/1/23-4/30/26 Blood brain barrier integrity and immune dynamics contributing to neuropsychiatric sequela in COVID long haulers
R01MH133411
NIH/NIMH
Award: $2,906,437
MPI: Rubin/Veenhuis
Role: Co-investigator , 10%

Previous

01/01/20—12/31/21 The Development of an Astrocyte Hemichannel Blocker to Delay Spatial and Temporal Progression in ALS
AL190044
DOD
PI: Maragakis
Award: $1,005,852
Role: Co-investigator, 10%

09/15/15—05/31/20 Morphine disrupts the regulation of neuronal function mediated by astrocyte exosomes
NIH/NIDA
R01DA040390
PI: Haughey
Award: $223,652
Role: Co-investigator

09/15/17—05/31/22 Exosomes: From biogenesis and secretion to the early pathogenesis of Alzheimer's disease
NIH/NIA
R01AG057420
PI: Haughey

Role: Co-investigator

07/01/19—03/31/24 Astrocyte Norrin, Norrie Disease and Neurodegeneration
NIH/NINDS
R01NS113565
Award: $442,448
PI: Rothstein
Role: Co-investigator, 50%

05/08/17 – 2/28/22 JHU NIMH center for novel therapeutics for HIV-associated cognitive disorders
P30MH075673
NIH/NIMH
Award: $1,005,852 (annual direct)
Multi-PI: Haughey, Rubin, Sacktor
Role: Co-investigator, 15%

04/01/20—03/31/22 Secondary Analysis of Cognitive Data from the Multi-Center AIDS Cohort Study(MACS) to Identify Longitudinal Change Phenotypes in HIV+ Individuals
1R03MH123290
NIH/NIMH
Award: $100,000
Role: PI, 30%

07/01/19 –06/30/2023
Collaborative Research: New Bayesian Methods for Modeling the Effect of Antiretroviral Drugs on Depressive Symptomatology in HIV Patients
National Science Foundation (NSF)
Award Number: DMS1918854
Award: $598,249
MPI: Xu, Rubin
Role: Co-investigator, 5%

9/1/22-8/01/25 HIV-OPN/SPP1Triad II: Molecular Pathways Regulating Neuronal-Glial Inflammation in the Brain
R01NS102006
NIH
PI: Brown
Role: Co-investigator , 3%

INTRAMURAL Funding

Research Intramural Funding

Current

01/01/23—12/31/26 Psychosocial Phenotypes and Potential Mechanisms in Women Living with HIV
P30AI094189
Award : $42,525
Role: PI

02/19/26—12/31/26 Blood Brain Barrier Permeability Endotypes and Plasma Proteomic Signatures in Long-COVID
Michael and Ann Hankin Fund
Award : $25,000
Role: PI

Previous

10/01/21—09/30/22 Development of Software Tools to Facilitate the Analysis of Digital Neurocognitive Testing Data
NIH/NIAID CFAR Pilot
P30AI094189
Award : $6,500
Role: PI

01/01/20—12/21/20 Combined Systems Analysis and Predictors of Neurocognitive Trajectory in HIV+ Individuals

NIH/NIAID CFAR Pilot
P30AI094189
Award : $50,000
Role: PI

EDUCATIONAL ACTIVITIES *(in chronological order, earliest first by start date under each subcategory)*

Educational Focus

My educational focus is on applying computational methods to biological data. This includes software design, graphical user interfaces, and informative data visualization.

Teaching and Facilitating Learning (

Classroom instruction

JHMI/Regional

2013 – 2014	Graduate Teaching Assistant, Undergraduate level, Programming & Modelling , Drexel University, Philadelphia PA
2009 – 2013	Graduate Teaching Assistant, Undergraduate level, Experimental and Biomechanics Lab, Drexel University, Philadelphia PA
2010 – 2011	Graduate Teaching Assistant, Undergraduate level, Junior Design , Drexel University, Philadelphia PA
2010	Graduate Teaching Assistant, Undergraduate level, Medical Sciences I, Drexel University, Philadelphia PA
2010	Graduate Teaching Assistant, Undergraduate level, Body Synthetic , Drexel University, Philadelphia PA
2019	Instructor, Undergraduate level, SOUL: Hands-on Matlab App Development for Biomedical Applications, Johns Hopkins University, Baltimore MD

National

2024	STAHR Summer institute lecture to fellows and junior faculty, "From Data to Insights: An Introduction to Data Science and Machine Learning", University of California San Diego

Workshops /seminars

JHMI/Regional

National

2021	**Dastgheyb RM.** Machine learning approaches to understand neuropsychiatric profiles. Invited talk, Machine Learning Working Group, NIMH "Biotypes of CNS Complications in People Living with HIV" meeting; virtual via Zoom; October 21, 2021
2022	Invited Member, "First Organoid Intelligence (O.I.) Workshop: Forming an O.I. Community", Johns Hopkins Bloomberg School of Public Health
2023	NIMH DAR Distinguished Speaker Series, "Data Science Methods to Unravel and Understand Phenotypes from HIV Cohorts", National Institutes of Mental Health

Mentoring, coaching, and advising

High School Mentees

2020	Jennifer Hinton - Johns Hopkins Neuroscience Scholar Program
2025	Polaris Booth – Johns Hopkins Internship for Brain Sciences
2025	Adelaide McMurray– Johns Hopkins Internship for Brain Sciences

Pre-doctoral Advisees /Mentees

2013 - 2015	Miao Jingya, M.S
2019 - 2024	Cynthia Lo, B.S in Chemical and Biomolecular Engineering – currently a data scientist. Awarded Genentech fellowship and BMES presentation.
2020 – 2021	Danyang Yu – currently a Senior Machine Learning Engineer
2021 – 2025	Jonathan Ye – currently a technical solutions engineer at Epic

2022 – 2025 Wenxuan Lu – currently a PhD Student at Bloomberg school of public health
2023 – Present Edna Ferreira
2024 – Present Avery Ye
2025 – Present Hannah Moore

Post-doctoral Advisees /Mentees

2022 – 2025 Eran Shorer, MD – now a neurology resident at Mt.Sinai
2024 – Present K Ridgeway
2024 – Present Aparna Bhattacharryya

Thesis committees

2024	Ching-Huan Wang	Signal Detection for Adverse Events by Component Levels of Antiretroviral Drugs
2024	Jonathan Ye	Exploring the Cognitive Impact of Polypharmacy: A Clustering Approach to Medication Patterns
2024	Edna Fereirra	The Effect of Sex on the Immune Response to SIV Infection

Program Building and Curriculum Development

2024 – Present Synapticoders: Synpaticoders Coding Group, founder and lead. Weekly peer code-review and methods clinic; ~10 participants per session; setting: Zoom with occasional in-person at JHU Neurology; curriculum focuses on R/Python workflows, reproducibility, Git, testing, and performance tuning.

Educational Leadership

2010 – 2011 Graduate Representative, Drexel Middle States Mission and Goals Working Group
2011 – 2012 President, Drexel Biomedical Engineering Graduate Student Association

Educational Demonstration Activities to external audiences, on or off campus

2010 Alum Chaperone, NIH-NIDDK STEP-UP Program
2011 – 2015 Judge, Research Experience for Undergraduates, Drexel University
2010 – 2011 Guest Scientist, Science Leadership Academy, School District of Philadelphia
2013 Mentor, Biomedical Engineering Summer Research Experience for Highschool Students, Drexel University
2018 Roots and Branches Elementary School – Interactive Proprioception Presentation
2021-2025 Neuromatch Academy – summer mentoring for a group using the Steinmetz dataset to investigate computational models of how inter-areal connectivity patterns pre-stimulus relate to decision response time/latency

RESEARCH ACTIVITIES

Research Focus

My professional passion unites two worlds: engineering and the brain. Every project I pursue sits squarely at this intersection. Trained in biomedical engineering and computer science, I thrive on using quantitative methods to solve biological questions that matter to patients, and I have extensive experience in wet-lab, computational, and clinical areas. My graduate career was very wet-lab based, focused on investigating the mechanisms of axonal pathology in traumatic brain injury, and the subsequent secondary neurodegeneration mechanisms it shares with many other conditions. For my postdoctoral training I continued to use and adapt my engineering background to further understand the mechanisms of disorders that affect the brain and spinal cord, designing software and experiments for the analysis of direct neuronal activity measurements through multi-electrode arrays in cultured primary neurons, stem cells, organoids, and brain slices. The pivot to translating those tools to real human data was a natural progression. The question then became not "what questions can we answer with the tools we have", but "what tools do we need to build to answer the important questions?" With this mindset I published the largest cognitive phenotyping ever done in women with HIV which has sparked many other cognitive phenotyping studies.

Today I co-direct two translational engines at Johns Hopkins: the Brain Health Program Data Science and Mathematical Modeling Core of the Brain Health program, and the JH-CAHN biomarker core. In these roles I integrate omics and advanced machine learning to identify targets for cognitive decline and mental health changes seen in a variety of neurodegenerative diseases. I work closely with the other cores, including the Johns Hopkins Drug Discovery Center, to validate markers and see if we can identify targets for compound screening and eventual testing. I also work with the MWCCS Data Analysis & Coordination Center, leading the initiative to convert in-person neuropsychological testing to tablet based.

I feel strongly that we are not limited to answering questions with the tools we currently have at our disposal, but instead should find and develop tools to answer the questions that we believe to be of the utmost clinical importance. Some of these tools may already exist and I believe that translating methods from external fields to neurology can quickly open new doors for research progress.

Research Program Building / Leadership

2012 – 2013 Chair, Drexel Doctoral Student Academic Affairs Advisory Committee
2023 – Present Co-director, JH-CAHN Biomarker Core
2023 – Present Co-director, Brain Health Program Data Science and Mathematical Modeling Core

Research Demonstration Activities to external audience, on or off campus

June 2023 SciDataReportR use, R/Medicine video release

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

2020 Member, Neurology Restart Committee

Editorial Activities

2021 Review Editor – Neurological and Mental Health Epidemiology (specialty section of Frontiers in Epidemiology)
2023 Associate Editor – Organoid Intelligence (specialty section of Frontiers in Artificial Intelligence)
2025 Review Editor - Frontiers in psychiatry

Journal peer review activities

2018 PLOS Computational Biology
2019 Journal of Neurovirology
2019 JAIDS: Journal of Acquired Immune Deficiency Syndromes
2021 Neuroinformatics
2022 Psychosomatic Medicine
2023 Scientific Reports
2023 Journal of Open Source Software

Other peer review activities [*non medico-legal*]

2020 Scientific Computing with Python - General Track
2020 Scientific Computing with Python - Tutorials
2021 Scientific Computing with Python - General Track
2021 Scientific Computing with Python - Tutorials
2025 Biomedical Engineering Society Conference

Professional Societies *(when you include additional duties for the society, move "Member" to its own line; see examples)*

2013 - present Member, Biomedical Engineering Society (BMES)
2014 - 2015 Member, National Neurotrauma Society (NNS)
2016 – 2020 Member, International Society for NeuroVirology (ISNV)
2016 – present RLadies Baltimore
2016 – present Association for Women in Science (AWIS)
2022 – present Data Visualization Society
2022 – present Baltimore Women in Machine Learning and Data Science

Session Chair (*separate into JHMI/Regional – National - International activities*)

National

2025 Biomedical Engineering Society Conference – Neural Engineering, Neurodegeneration & Hydrocephalus
2025 Biomedical Engineering Society Conference – Bioinformatics, Computational and Systems Biology

RECOGNITION

Awards, Honors

2014	Most Outstanding Graduate Student Paper and Poster Presentation, Northeastern Biomedical Engineering Conference(NEBEC)
2014	Travel Award, National Neurotrauma Society
2015	Office of Graduate Studies Dissertation Fellowship
2016	Travel Award, International Society for Neurovirology
2016	Howard E. Gendelman 2016 ISNV Pioneer in NeuroVirology Lectureship Award
2018	Sponsored Registration, SciPy 2018 Conference

Invited Talks

JHMI/Regional

2015	Commencement Speaker, Drexel University School of Biomedical Engineering
2017	"How do we measure what's in our head?", HEAD Talks: Ideas in Neurology worth sharing, Johns Hopkins Neurology
2017	"Moveable Feast: Feed People, Fight Disease, Foster Hope", Johns Hopkins University
2019	"Mass-Spectrometric Analysis of Lipids in Brain & Blood: Lipids as Potential Biomarkers for TBI" , CNRM & Department of Pharmacology & Molecular Therapeutics, Uniformed Services University
2021	"MEAnalyzer – Computational Software for Analyzing Spike Trains from Multi-Electrode Arrays", JHU Center for Alternatives to Animal Testing (CAAT)
2022	"Development of Software Tools to Facilitate the Analysis of Digital Neurocognitive Testing Data", JHU Center for Aids Research (CFAR)
2023	"Big Data and Omics pipelines for HIV Cohorts", MCP Seminar Series

National

2021	**"**Patterns and Predictors of Neuropsychiatric Complications", MACS/WIHS Combined Cohort Study (MWCCS) semi-annual meeting
2022	"Machine learning approaches to understand neuropsychiatric profiles", NIMH Biotypes of CNS Complications in People Living with HIV workshop
2022	Sleep disturbance and cognitive function in women with HIV. Early Stage Investigator presentation, Sleep Working Group, MWCCS Executive Committee Meeting (MACS/WIHS Combined Cohort Study); virtual via Zoom; October 13, 2022
2023	"Data Science Methods to Unravel and Understand Phenotypes from HIV Cohorts", NIMH Division of AIDS(DAR) Distinguished Speaker Series
2024	"SciDataReportR: Streamlining Scientific and Clinical Data Exploration in R", R/Medicine Conference
2026	"Translating data into insights: an interdisciplinary approach to brain health in HIV", Drexel University College of Medicine, Department of Pharmacology and Physiology
2026	"Blood-Brain-Bytes: From Multi-Electrode Arrays to Multi-Cohort Data", American Society for Neurochemistry, St.Charles MO

Visiting Professorships

OTHER PROFESSIONAL ACCOMPLISHMENTS (*Optional)*

1. **Dastgheyb, R. M.**, Gallo, G., & Barbee, K. A. (2011, April). Quantification of beading intensity in cultured neurons. In *2011 IEEE 37th Annual Northeast Bioengineering Conference (NEBEC)* (pp. 1-2). IEEE.
2. **Dastgheyb, R. M.**, Cochran, M. C., & Barbee, K. A. (2012, March). Interactions of fluorescein isothiocyanate-labeled poloxamer P188 with cultured cells. In *2012 38th Annual Northeast Bioengineering Conference (NEBEC)* (pp. 311-312). IEEE.
3. **Dastgheyb, R.,** Gallo, G., Barbee, K. An Implemented Method of Quantifying Beading Intensity in Cultured Neurons. *Biomedical Engineering Society Conference (BMES)*
4. Taga, A., **Dastgheyb, R.,** Joseph, J., Habela, C., Richard, J. P., Haughey, N., & Maragakis, N. (2019). Multielectrode array analysis of human iPSC-motor neuron maturation following coculture with iPSC-spinal cord astrocytes (P4. 4-031).
5. **Dastgheyb, R. M.,** Barbee, K. A., & Gallo, G. (2014, April). The role of intracellular calcium in axonal injury. In *2014 40th Annual Northeast Bioengineering Conference (NEBEC)* (pp. 1-2). IEEE.
6. **Dastgheyb, R.,** Gallo, G., Barbee, K. The Role of Oxidative Stress in Axonal Patholog. *Biomedical Engineering Society Conference (BMES)*
7. **Dastgheyb, R. M.**, Barbee, K. A., & Gallo, G. (2015, April). Quantifying focal disruptions in axonal microtubules. In *2015 41st Annual Northeast Biomedical Engineering Conference (NEBEC)* (pp. 1-2). IEEE.

8. **Dastgheyb, R. M.,** Barbee, K. A., & Gallo, G. (2015, April). Investigating sources of axonal calcium in neuronal cultures modeling Traumatic Brain Injury. In *2015 41st Annual Northeast Biomedical Engineering Conference (NEBEC)* (pp. 1-2). IEEE.
9. **Dastgheyb, R**., Khuder, S., Dorskind, J., Wang, S., Chaudhuri, A. D., Yoo, S. W., & Haughey, N. (2016, October). Astrocyte-shed extracellular vesicles regulate synchronous network burst activity. In *JOURNAL OF NEUROVIROLOGY* (Vol. 22, pp. S16-S16). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.
10. Chaudhuri, D. A., Wang, S., Khuder, S., **Dastgheyb, R**., Trout, A., Yoo, S., ... & Haughey, N. (2017, April). Exosomes released from astrocytes in response to morphine and inflammatory cytokines deconstruct synaptic connections through modulation of microRNA cargo. In *JOURNAL OF NEUROIMMUNE PHARMACOLOGY* (Vol. 12, pp. S53-S53). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.
11. **Dastgheyb, R.**, Chen, S., Venkata, S. L. V., Rubin, L. H., Franklin, D., Letendre, S., ... & Haughey, N. (2018, April). Machine learning interrogation of clinical and plasma markers identify prognostic models for cognitive trajectory. In *JOURNAL OF NEUROIMMUNE PHARMACOLOGY* (Vol. 13, pp. S20-S21). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.
12. **Dastgheyb R,** Williams DW, Xu Y, Fitzgerald K, Wang Z, Keating S, Norris P, Kaplan RC, Maki PM, Anastos K, Haughey NJ, Kassaye S, Gustafson DR, Valcour VG, Rubin LH. (March 5, 2019). Early inflammatory profiles in long-term virally suppressed women predict cognition. Conference on Retroviruses and Opportunistic Infections (CROI). Seattle, Washington.
13. # **Dastgheyb, R**., #Chen, S., Rubin, L., Venkata, S., Cox, B., Haughey, N. (2018). Analysis of Plasma Lipids with an Acute Mile TBI. National Capital Area Research Symposium # *Co-first authors*
14. Habela, C., Taga, A., **Dastgheyb, R.,** Yoon, K. J., Haughey, N., Stafstrom, C., ... & Maragakis, N. (2019, April). 15q11. 2 Deletion Results in Altered Excitability and Connectivity in Human Induced Pluripotent Stem Cell Derived Neurons (American Academy of Neurology, S51. 009).
15. Taga, A**., Dastgheyb, R.,** Joseph, J., Habela, C., Richard, J. P., Haughey, N., & Maragakis, N. (2019, April). Multielectrode array analysis of human iPSC-motor neuron maturation following coculture with iPSC-spinal cord astrocytes (American Academy of Neurology, P4. 4-031).
16. Rubin LH, Saylor D, Nakigozi G, Nakasujja N, Robertson K, Kisakye A, Batte J, Mayanja R, Anok A, Lofgren SM, Boulware DR, **Dastgheyb, R**, Reynolds S, Quinn T, Gray RH, Wawer MJ, Sacktor NC. (April 9, 2019). Heterogeneity in Neurocognitive Change Trajectories Among People Starting Antiretroviral Therapy HIV Infection in Rakai, Uganda. 10th Anniversary Conference: Global Mental Health without Borders. Bethesda, MD.
17. Westergard, T. R., Miller, S. J., Philips, T., Kim, N**., Dastgheyb, R.,** Chen, Z., ... & Rothstein, J. D. (2019, July). Molecularly defined cortical astroglia subpopulation modulates neurons via secretion of Norrin. In *GLIA* (Vol. 67, pp. E737-E737). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY.
18. Moniruzzaman, M., **Dastgheyb, R.,** Lo, C., Mielke, M. M., Moore, D., Letendre, S., ... & Haughey, N. J. (2019, October). Elevated plasma eicosanoids are associated HIV-disease status and working memory in people living with HIV. In *JOURNAL OF NEUROVIROLOGY*
19. **Dastgheyb R**, Fitzgerald KC, Chan C, Buchholz AS, Xu Y, Williams DW, Springer G, Anastos K, Gustafson DR, Spence AB, Adimora AA, Waldrop-Valverde D, Vance DE, Milam J, Bolivar H, Weber KM, Haughey NJ, Maki PM, Rubin LH. (November, 2019). Neurocognitive profiles among virally suppressed women with HIV. International Symposium on Neurovirology. Atlanta, GA
20. Kumar, A., Yoo, S. W., **Dastgheyb, R.,** Deme, P., Lee, H., Bi, H., ... & Haughey, N. (2019, October). Modulation of neuronal dendritic spine morphology and function by astrocyte derived extracellular vesicles following morphine withdrawal. In *JOURNAL OF NEUROVIROLOGY* (Vol. 25, No. SUPPL 1, pp. S22-S22). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.
21. O'Halloran J., Wang K., Williams D., **Dastgheyb R**., Fitzgerald K., Kamkwalala A., Spence A., Sharma A., Gustafson D., Maki P., Weber K., Adimora A., Fischl M., Xu Y., Rubin L.(2020) Start or Switch of Integrase Strand Inhibitors on Depressive Symptoms In Women With HIV. Conference on Retroviruses and Opportunistic Infections (CROI). Boston, MA
22. O'Halloran J., Wang K., Williams D., **Dastgheyb R**., Fitzgerald K., Kamkwalala A., Spence A., Sharma A., Gustafson D., Maki P., Weber K., Adimora A., Fischl M., Xu Y., Rubin L.(2020) Integrase Inhibitor Start or Switch Impacts Learning in Women With HIV. Conference on Retroviruses and Opportunistic Infections (CROI). Boston, MA
23. Taga, A., Rajbhandari, L**., Dastgheyb, R.,** Habela, C., Gross, S., Haughey, N., ... & Maragakis, N. (2020). Modeling the Human Corticospinal Tract-on-a-chip with Regionally-specific hiPSC-derived Neurons and Astrocytes (4811).
24. Habela, C., Taga, A**., Dastgheyb, R**., Yoon, K. J., Haughey, N., Stafstrom, C., ... & Maragakis, N. (2019). 15q11. 2 Deletion Results in Altered Excitability and Connectivity in Human Induced Pluripotent Stem Cell Derived Neurons (S51. 009).
25. Bi, H., Chaudhuri, A. D., & **Dastgheyb, R.** (2019, October). IL-1beta stimulates the release of extracellular vesicles from astrocytes that promote the expression of neuronal receptors implicated in a morphine-addiction pathway. In *JOURNAL OF NEUROVIROLOGY* (Vol. 25, No. SUPPL 1, pp. S4-S5). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.

26. Lo, C., Yoo, S., Haughey, N., **Dastgheyb, R.**. (2020) Automated Detection and Quantification of Amyloid-Beta Plaque Histology. *Biomedical Engineering Society Conference (BMES)*
27. **Dastgheyb, R.,** Xu, Y., Bucholz, A., Franklin, D., Ellis, R., Morgello, S., Clifford, D., Gellman, B., Marra, C., Heaton, R., Moore, D., Letendre, S., Ma, Q., Rubin, L. (2022) Prescribed Drugs Distinguish Data-Driven Cognitive Profiles in People with HIV (PWH). Conference on Retroviruses and Opportunistic Infections (CROI).
28. Vance,D., Maki, P., Yu, D., **Dastgheyb, R**., Springer, G., Anastos, K., Gustafson, D., Weber, K… Rubin, L. (2022) Cognitive Predictors of Everyday Functioning in the Women's Intragency Study. Conference on Retroviruses and Opportunistic Infections (CROI).
29. O'Halloran, J., Wang, Y., Jin, Wei., Masters, M., **Dastgheyb, R**., Adimora, A… Rubin, L. (2022) Predicted Impact of ART Switch on Body Mass Index Among Women With HIV (CROI).
30. McAlpine, L., **Dastgheyb, R.,** Chiarella, J., Fulbright, R., Constable, T., Lacadie, C., Yoon, J., Reisert, H., Farhadian, S., Spudich, S., Rubin, L. (2023) Post-Acute Nervous System Sequelae of COVID-19 in people with and without HIV. Conference on Retroviruses and Opportunistic Infections (CROI).
31. Wiseman R., Dastgheyb R., Santiuste I., Riggs C., Rais R., Alt J., Bigos K., Rubin L., Slusher B. (2023) Brain N-acetyl-aspartyl-glutamate (NAAG) is associated with cognitive function in virally-suppressed people living with HIV. International Society of Neurovirology (ISNV)
32. Rubin L., Shirk E., Pohlenz L., Romero H., Roti E., **Dastgheyb R**., Santiuste I., Riggs C., Coughlin J., Brown T., Blankson J., Maki P., Clements J., Veenhuis R. (2023) Intact HIV genomes within monocytes are associated with cognitive function in virally suppressed women with HIV. International Society of Neurovirology (ISNV)
33. Parra-Rodriguez, L., O'Halloran, J., Wang, Y., **Dastgheyb, R**., Spence, A., Sharma, A., Gustafson, D., Milam, J., Weber, K., Adimora, A., Ofotokun, I., Fischl, M., Konkle-Parker, D, Xu, Y., Rubin, L (2023) . Effect of Common Antiretroviral Combinations on Depressive Symptoms in Women with HIV. Conference on Retroviruses and Opportunistic Infections (CROI).
34. Mukerji S., Bachanova P., Rosen L., Park H., Hashlan R., Kivisakk P., Chow F., Wu K., **Dastgheyb R**., Rubin L., Tassiopoulos K., Parker R., Hyle P.(2024) Assessing Blood-Based Biomarkers as Predictors of Cognitive Decline in PWH: ACTG A5322(HAILO). Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO
35. Rubin L., Cho K., Bolzenius J., Mannarino J., Anok A., Tomusange S., **Dastgheyb R.**, Shorer E., Saylor D., Wawer M., Nakasujja N., Nakigozi G., Paul R.(2024) Mental Health Phenotypes of Well-Controlled HIV in Uganda. Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO
36. **Dastgheyb R.**, Cooley S., Bucholz A., Petersen K., Ances B., Rubin L.(2024) Sociodemographics were Stronger Classifiers of Cognitive Profiles than Cognitive Imaging in HIV. Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO
37. Parra-Rodriguez, L., O'Halloran, J., Wang, Y., Jin W., Lang L., **Dastgheyb R.**, Franlin D., Ellis R., Letendre S., Ma Q., Xu Y., Rubin L. (2024) Antiretroviral Regimens are Associated with Cognitive Function in People with HIV. Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO
38. Shorer E., **Dastgheyb R.**, French A., Daubert E., Morack R., Clish C., Bullock K., Gistafson D., Sharma A., Rogando A., Qi Q., Burgess H., Rubin L., Weber K. (2024) Tryptophan and Kynurenine Pathway Activation and Cognition in Virally-Suppressed Women With HIV. Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO
39. Van Doorn J., Rubin L., Naaz F., Chen L., Kassaye S., Goparaju L., **Dastgheyb R.,** Kamkwalala A., Lee H., Konstantopoulos A., Severson J., Ajilore O., Leow A., Maki P (2024). Functional Brain Network Changes Among People with HIV and Viral Suppression. Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO
40. Masters MC**,** Granche J, **Dastgheyb RM**, Tassiopoulos K, Landay A, Johnston C, Koletar SL, Kuchel GA, Kirkland JL, Tchkonia T, Erlandson KM, Palella FJ. Unique senescence-associated secretory phenotype (SASP) biomarker profiles are associated with specific aging-related outcomes in people with HIV. Poster #873, Session L-03 Biomarkers of Aging, 32nd Conference on Retroviruses and Opportunistic Infections (CROI 2025), San Francisco, CA; March 9–12, 2025.
41. Shorer EF, **Dastgheyb RM**, Hahm E, Cao Y, Weber KM, Rubin LH, French AL, Gonzalez H. Higher suPAR Relates to Domain-Specific Cognitive Function in Virally Suppressed Women With HIV. Abstract #602, Session E-02 Biomarkers for NeuroHIV Informing Pathogenesis. 32nd Conference on Retroviruses and Opportunistic Infections (CROI 2025), San Francisco, CA; March 9–12, 2025.
42. Rubin LH**,** Ridgeway K, Easter RE, **Dastgheyb RM**, Ye JH, Shorer EF, Anok A, Tomusange S, Mannarino J, Saylor D, Nakasujja N, Nakigozi G, Paul R. Cognitive and sensorimotor difficulties in well-controlled people with HIV living in Uganda. Abstract #619, Session E-04 "Addressing NeuroHIV in Lower- and Middle-Income Settings." 32nd Conference on Retroviruses and Opportunistic Infections (CROI 2025), San Francisco, CA; March 9–12, 2025.
43. Vance DE**, Xu** Y, **Dastgheyb RM**, Maki PM, Zhang J, Springer G, Anastos K, Gustafson D, Weber KM, Diaz MM, Kempf M-C, Konkle-Parker D, Goodkin K, Wright M, Rubin LH. Cognitive Intra-Individual Variability Predicts IADL Function in the Women's Interagency HIV Study. Abstract #603, Session E-02 Biomarkers for NeuroHIV Informing Pathogenesis; 32nd Conference on Retroviruses and Opportunistic Infections (CROI 2025), San Francisco, CA; March 9–12, 2025.
44. **Johnston C**, **Dastgheyb RM**, Rubin LH, Shorer EF, Siegler E, Pang A, Glesby M, Corley MJ. Epigenetic Age Advancement Predicts Cognitive Performance in Older People With HIV. Abstract #612, Session E-03 "Omics Approaches to Pathogenic

Interrogation of NeuroHIV"; 32nd Conference on Retroviruses and Opportunistic Infections (CROI 2025), Moscone Convention Center, San Francisco, CA; March 9–12, 2025.

45. Taga A, **Dastgheyb RM**, Joseph J, Habela C, Richard J-P, Haughey N, Maragakis N. "Multielectrode Array Analysis of Human iPSC-Motor Neuron Maturation Following Coculture with iPSC-Spinal Cord Astrocytes (P4.4-031)." Poster, Motor Neuron Disease session, 71st AAN Annual Meeting, Philadelphia, PA; May 9, 2019.
46. 2019: Habela C, Taga A, **Dastgheyb RM**, Yoon KJ, Haughey N, Stafstrom C, Bergles D, Song H, Maragakis N. "15q11.2 Deletion Results in Altered Excitability and Connectivity in Human Induced Pluripotent Stem Cell-Derived Neurons (S51.009)." Platform presentation, Child Neurology: Bench to Bedside, Progress in Treating Genetic Disorders session, 71st AAN Annual Meeting, Philadelphia, PA; May 9, 2019.
47. Taga A, Rajbhandari L, **Dastgheyb RM**, Habela C, Gross S, Haughey N, Venkatesan A, Maragakis N. "Modeling the Human Corticospinal Tract-on-a-Chip with Regionally Specific hiPSC-Derived Neurons and Astrocytes (Abstract 4811)." Poster, Neuromuscular and Clinical Neurophysiology (EMG): Motor Neuron and Charcot-Marie-Tooth session, American Academy of Neurology Annual Meeting, Virtual [originally Toronto, Ontario]; April 14, 2020.
48. Bhattacharyya, A., **Dastgheyb, R. M.** (2024, October 31). "SciDataReportR: A Software Package to Streamline Scientific and Clinical Data Exploration." *Poster Presentation. Annual Johns Hopkins Neurology Retreat, Johns Hopkins University, Baltimore, MD, United States.*
49. Bhattacharyya, A., **Dastgheyb, R. M**. (2024, October 31). "SciDataReportR: A Software Package to Streamline Scientific and Clinical Data Exploration." *Poster Presentation. Annual Johns Hopkins Neurology Retreat, Johns Hopkins University, Baltimore, MD, United States.*
50. Tavasoli A, Sheikh Andalibi MS, **Dastgheyb RM**, Letendre SL, Ellis RJ. "Systemic Inflammation and Its Impact on Comorbidities in People with HIV (P8-10.001)." Poster, Infectious Disease: Clinical Cases of PML, HIV, and Non-conventional Infectious Agents with Diagnostic Insights 2 session, 77th American Academy of Neurology (AAN) Annual Meeting, San Diego, CA (hybrid); April 7, 2025.
51. Bhattacharyya, A., **Dastgheyb, R. M.** (2025, September 16). "SciDataReportR: A Software Package to Streamline Scientific and Clinical Data Exploration." *Poster Presentation. Johns Hopkins Data Science and AI Institute Fall 2025 Symposium, Baltimore, MD, United States.*

Oral/Podium Presentations

1. **Dastgheyb, R**., Khuder, S., Dorskind, J., Wang, S., Chaudhuri, A. D., Yoo, S. W., & Haughey, N. (2016, October). Astrocyte-shed extracellular vesicles regulate synchronous network burst activity. In *JOURNAL OF NEUROVIROLOGY* (*Vol. 22, pp. S16-S16). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.*
2. **2019 — Habela C, Taga A, Dastgheyb R, Yoon K-J, Haughey N, Stafstrom C, Bergles D, Song H, Maragakis N.** "15q11.2 Deletion Results in Altered Excitability and Connectivity in Human Induced Pluripotent Stem Cell-Derived Neurons (S51.009)." Platform presentation, *Child Neurology: Bench to Bedside—Progress in Treating Genetic Disorders* session, 71st AAN Annual Meeting, **Philadelphia, PA**, May 9 2019.
3. **Dastgheyb, R**., Making Sense of Clinical Data, Scientific Computing with Python Virtual Conference 2020
4. Tang, B., Ellis, R., Vaida, F., Umlauf, A., Franklin, D., **Dastgheyb, R**., Rubin, L., Heaton, R., Letendre, S (2023) Biopsychosocial Phenotypes in People With HIV in the CHARTER Cohort. Conference on Retroviruses and Opportunistic Infections (CROI).
5. Shorer EF, **Dastgheyb RM**. A Graph Theory Based Approach to Visualizing and Interpreting Functional Connectivity in Neural Multi-Electrode Array (MEA) Recordings. Oral presentation at the 49th Annual Northeast Bioengineering Conference (NEBEC 2023), School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA; March 30–April 1, 2023.
6. Parra-Rodriguez, L., O'Halloran, J., Wang, Y., **Dastgheyb, R**., Spence, A., Sharma, A., Gustafson, D., Milam, J., Weber, K., Adimora, A., Ofotokun, I., Fischl, M., Konkle-Parker, D, Xu, Y., Rubin, L (2023) . Effect of Common Antiretroviral Combinations on Depressive Symptoms in Women with HIV. Conference on Retroviruses and Opportunistic Infections (CROI).
7. **Dastgheyb, R**., Weber, K., Daubert, E., Sharma, A., Gustafson, D., Weiss, D., Ramirez, C., Konkle-Parker, D., Cribbs, S., Aouizerat, B., Alden, C., Kassaye, S., French, A. , Rubin, L. (2023) . Sleep Disturbances are Associated with Cognitive Function in Women Living with HIV. Conference on Retroviruses and Opportunistic Infections (CROI). *Also part of a themed Discussion: "A Virus on My Mind"*
8. Shorer E.,Rubin L.,French A.,Weber K.,Clish C.,Morack R.,Gustafson D.,Sharma A.,Rogando A.,Qi Q.,Burgess H.,**Dastgheyb R**.(2023) Tryptophan-Kynurenine Metabolic Pathway and Daytime Dysfunction in Women Living With HIV. International Society of Neurovirology (ISNV)
9. McAlpine L.S., **Dastgheyb R.M.,** Chiarella J., Fulbright R.K., Constable T., Lacadie C., Yoon J., Reisert H., Farhadian S., Spudich S., Rubin L.H.(2023) Cognitive, Motor, and Negative Valence Systems in Neurologic PASC: A Preliminary Study. International Society of Neurovirology (ISNV)

10. Rubin L., Maki P., Du Y., Sweeney S., O'Toole R., **Dastgheyb R.**., Shorer E., Kamkwalala A., Lee H., Severson J., Minn I., Wugaltar K., Bakker A., Pomper M., Coughlin J. (2024) Assessing the Contribution of Glial Activation to Cognitive Control and Declarative Memory in PWH. Conference on Retroviruses and Opportunistic Infections (CROI), Denver CO

Community Services (optional)

2016 - 2022	Mentor, Refugee Youth Project
2016 - Present	Volunteer, Moveable Feast

Humanitarian Activities (optional)

Philanthropic Activities (optional)

2021 - Present	Member, Moveable Feast Program Committee
2024 – Present	Board Member, Moveable Feast
2025 – Present	Executive Board Member, Moveable Feast

Other (optional)

Sept	2019	HIV-associated Comorbidities, Co-infections, and Complications Workshop, NIMH
March	2020	Data Science with Matlab, Mathworks
June	2020	Research Colloquium: Data Management: New Resources & Best Practices to Support Rigorous Research
Aug	2020	R/Medicine 2020
July	2020	Scientific Python
Sept	2020	Health Statistics and Datasets: Finding Existing Data For Your Research
Aug	2020	R/Medicine
Jan	2021	RStudio Conference
Dec	2021	Specialized Centers of Research Excellence (SCORE) on Sex Differences
May	2021	Matlab Expo 2021
June	2021	Advanced Statistical Methods and Dynamic Data Visualizations for Multidimensional Neuro-Behavioral Data
July	2021	Neurologic and Psychiatric Effects of SARS, NIMH
July	2021	UseR!
April	2022	K-to-R Transition Program Seminar: Fiscal Management
April	2022	NIMH Submission and Peer Review of NIH Grants
May	2022	Grants Management Pre-Award
May	2022	Matlab Expo 2022
May	2022	AWS Summit Washington DC
Aug	2022	Best Practices in University Teaching Workshop, Johns Hopkins University