

Curriculum Vitae

Stephanie M. Hare, PhD

Instructor, Department of Psychiatry, Maryland Psychiatric Research Center
University of Maryland School of Medicine

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Foreign Languages: Spanish (some working knowledge)

Post-Graduate Education and Training

2018-2020 T32 Postdoctoral Research Fellow, University of Maryland School of Medicine
T32 Training Program in Interdisciplinary Schizophrenia Research
Department of Psychiatry, Maryland Psychiatric Research Center

2021 Instructor, University of Maryland School of Medicine Department of Psychiatry,
Maryland Psychiatric Research Center

Employment History

Other Employment

2013-2018 Graduate Student Research Assistant, Georgia State University
Research Activities: My research project focused on delineating trait biomarkers of auditory and visual hallucinations in schizophrenia using a combination of functional magnetic resonance imaging (fMRI) analysis methods.

Education

2006 - 2009 B.S., Neurobiology, University of Wisconsin – Madison

2010 - 2012 M.A., Philosophy (Specialization: Neuroethics), Loyola University Chicago

2013 - 2018 Ph.D., Neuroscience, concentration in Neuroethics, Georgia State University,
Thesis Advisor – Jessica Turner
“Monitoring Self and World: A Novel Network Model of Hallucinations in Schizophrenia”

Professional Society Membership

2011-present General Member, International Neuroethics Society

2013-present General Member, Neuroethics Women (NEW) Leaders

- 2015-present General Member, Organization for Human Brain Mapping (OHBM)
- 2015-present General Member, International Consortium on Hallucinations Research (ICHR)
- 2016-present General Member, American Association for the Advancement of Science (AAAS)
- 2018-present General Member, Society of Biological Psychiatry (SOBP)

Honors And Awards

- 2011 Best Abstract Award, International Neuroethics Society, awarded travel stipend to attend annual meeting
- 2013-2017 2nd Century Initiative Neuroethics Fellowship, Georgia State University, awarded for excellence in research in field of Neuroethics
- 2016-2018 Kenneth W. and Georganne F. Honeycutt Fellowship, Georgia State University, awarded for excellence in doctoral neuroscience research
- 2017 Public Communication Essay Contest Finalist, International Neuroethics Society, “Hearing Voices: First-Person Perspectives and Combatting Social Stigma”
- 2017 Travel Stipend, Canadian Institute for Advanced Research (CIFAR), awarded travel and hotel stipend to attend the Winter School on Neuroscience of Consciousness
- 2017-2018 Provost Dissertation Fellowship, Georgia State University, awarded for excellence in doctoral research
- 2019 Travel Stipend, awarded to attend the Early Career Hallucinations Research Group Annual Meeting, London, UK
- 2019 Loan Repayment Award, National Institute of Mental Health, loan repayment award for outstanding clinical neuroscience research proposal

Local and National Service

National Service

Reviewer:

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| 2017 | <i>Journal of Ethics in Mental Health</i> | <i>(1x/yr)</i> |
| | <i>Journal of Radiology and Diagnostic Methods</i> | <i>(1x/yr)</i> |
| 2018 | <i>Schizophrenia Bulletin</i> | <i>(1x/yr)</i> |
| | <i>Schizophrenia Research</i> | <i>(1/yr)</i> |
| 2019 | <i>Schizophrenia Bulletin</i> | <i>(3x/yr)</i> |
| 2020 | <i>Psychological Medicine</i> | <i>(1x/yr)</i> |
| | <i>Neuroscience and Biobehavioral Reviews</i> | <i>(1x/yr)</i> |
| | <i>Brain Structure and Function</i> | <i>(1x/yr)</i> |
| | <i>Schizophrenia Research: Cognition</i> | <i>(1x/yr)</i> |
| | <i>Human Brain Mapping</i> | <i>(1x/yr)</i> |
| 2021 | <i>BJPsych Open</i> | <i>(1x/yr)</i> |
| | <i>Neurobiology of Stress</i> | <i>(1x/yr)</i> |
| | <i>Neuropsychiatric Disease and Treatment</i> | <i>(1x/yr)</i> |
| | <i>Journal of Psychiatric Research</i> | <i>(1x/yr)</i> |

Committee Work:

2020 Served on the International Neuroethics Society Program Committee

Local Service

2014-2015 Exhibitor & Neuroscience Outreach, Atlanta Science Festival and Discovery Day (Georgia State University), Atlanta, GA

2017-2018 Exhibitor & Neuroscience Outreach, Atlanta Brain Bee, Emory University, Atlanta, GA

2019-2020 Organizer, Neuroimaging Journal Club, Maryland Psychiatric Research Center
2021 Moderator for Virtual Poster Sessions, Research Day, Department of Psychiatry, University of Maryland School of Medicine

Teaching Service

High School Outreach and Teaching

2021 Youth Mentor and Q&A Panelist for High School Students
International Youth Neuroscience Association Neuroethics Workshop
Teaching Responsibilities: I prepared a case-study for a 90-minute discussion with 20-30 high-school students over Zoom; I led discussion to evaluate pros and cons of each stance for a neuroethics case, and provided students with feedback

Undergraduate Student Teaching

2015 Guest Lecture, Improper Argumentative Form: Fallacies of Relevance
Philosophy 1010: Critical Thinking, Georgia State University
Teaching Responsibilities: I taught a 50-minute course on fallacies of reasoning; I was responsible for preparing all class content and delivering the lecture.

2017 Guest Lecture, Happiness: Cognitive & Computational Neuroscience
Perspectives 2002: Brain, Self, & Society, Georgia State University
Teaching Responsibilities: I taught a 50-minute course as a part of a broad course on societal impact of brain research; I was responsible for preparing all class content which included a break-out group activity and delivering the lecture

2017 Guest Lecture on Module on Positive Symptoms of Schizophrenia (four lectures)
Psych 4800/6650: Minds & Brains – The Cognitive Neuroscience of Psychosis, Georgia State University
Teaching Responsibilities: I taught a four-course module of a course covering topics on the Cognitive Neuroscience of Psychotic Disorders; I was responsible for preparing all class content for four lectures which included multiple break-out activities and delivering the lecture material for each classes.

Graduate Student Teaching

2019 Guest Lecture, Magnetic Resonance Imaging Tools and Clinical Applications

Psych 6000: Graduate Psychology Core Course

University of Maryland Baltimore County (UMBC)

Teaching responsibilities: I taught a 90-minute class on basic principles of MRI and applications for studying schizophrenia and other psychiatric populations; I was responsible for preparing all class content and delivering the lecture.

Mentoring

- 2011-2012 Graduate Mentor to Undergraduate Students
Achieving College Excellence Program
Loyola University Chicago
Responsibilities: I served as a mentor for eight undergraduates from minority background and/or first-generation college students; as mentors, we had weekly email contact with the students and had face-to-face meetings to check in 1-3 times per semester.
- 2014-2018 Graduate Student Mentor to Undergraduate Students
Imaging Genetics and Informatics Lab (PI: Jessica Turner, PhD)
Georgia State University
Responsibilities: I served as a mentor for two undergraduate students during my time as a PhD student (Alicia Law, Gabrielle Williams); my responsibilities included teaching them to use fMRI analysis software and other statistical software (SPSS) to conduct their mentored research projects. Their work resulted in multiple local conference presentations. For her contribution on one of my research projects, I included one of my mentees as a co-author on my published manuscript (Hare, Law, et al. 2018). During the course of these projects, I spent eight hours per week on average providing hands-on mentored support.

Grant Support

Active Support

- 05/01/2020-04/30/2022 (Co-Inv. S. Hare, 39%, PI, Robert Buchanan)
“Neuromodulation of Social Cognitive Circuitry in People with Schizophrenia Spectrum Disorders (ModSoCCS)”
NIMH
1 R61 MH120188-01A1
Subaward 20-240 from Centre for Addiction and Mental Health
The goal of this study is to evaluate whether TMS can alter the pattern of connectivity of the neural circuits, which support social cognitive processes.
Role: Will serve as key personnel for the study at the MPRC site, assisting with administration of rTMS.
- 2019-2021 (PI, S. Hare)
“Functional MRI Markers of Visual and Auditory Hallucinations”
NIMH

L30 MH120722

The goal of this study is to investigate the shared neural circuitry underlying both auditory and visual hallucinations in schizophrenia
Role: Will serve as PI for this competitive loan repayment award

Pending Grant

Submitted 02/12/2021

(PI, S. Hare)

K01 Mentored Research Scientist Development Award
“Cognitive and Neural Correlates of TMS Motor Intracortical Inhibition in Schizophrenia”

The goal of the Career Development Award is to provide the candidate with advanced training to achieve her career goals and transition to become an independent investigator. The research project investigates the clinical significance of a paired-pulse TMS marker of cortical excitability, the short-interval intracortical inhibition (SICI), which is consistently reduced in individuals with schizophrenia

Past Grant Support

2018-2020

(Trainee, S. Hare)

Training grant awarded to Maryland Psychiatric Research Center for postdoctoral training in interdisciplinary schizophrenia research
NIMH

T32 MH067533

Role: I was selected as a trainee on this competitive T32 fellowship, receiving advanced training in translational clinical applications of functional MRI and TMS.

Publications

Peer-reviewed journal articles

1. **Hare, S.M.**, Vincent, N.A. Happiness, Cerebroscopes and Incurability: Prospects for Neuroeudaimonia. *Neuroethics*. 2016 April; 9(1):69-84
2. **Hare, S.M.**, Ford, J.M., Ahmadi, A., Damaraju, E., Belger, A., Bustillo, J., Lee, H.J., Mathalon, D.H., Mueller, B.A., Preda, A., van Erp, T.G.M., Potkin, S.G., Calhoun, V.D., Turner, J.A. Modality-Dependent Impact of Hallucinations on Low-Frequency Fluctuations in Schizophrenia. *Schizophrenia Bulletin*. 2017 Mar; 43(2):389–396.
3. **Hare, S.M.**, Law, A.*, Ford, J.M., Mathalon, D.H., Ahmadi, A., Damaraju, E., Bustillo, J., Belger, A., Lee, H.J., Mueller, B.A., Lim, K.O., Brown, G.G., Preda, A., van Erp, T.G.M., Potkin, S.G., Calhoun, V.D., Turner, J.A. Disrupted Network Cross Talk, Hippocampal Dysfunction and Hallucinations in Schizophrenia. *Schizophrenia Research*. 2018 Sept; 199: 226-234.
4. **Hare, S.M.**, Ford, J.M., Mathalon, D.H., Ahmadi, A., Damaraju, E., Bustillo, J., Belger, A., Lee, H.J., Mueller, B.A., Lim, K.O., Brown, G.G., Preda, A., van Erp, T.G.M., Potkin, S.G.,

- Calhoun, V.D., Turner, J.A. Salience-Default Mode Functional Network Connectivity Linked to Positive and Negative Symptoms of Schizophrenia. *Schizophrenia Bulletin*. 2019 Jun 18;45(4):892-901.
5. Gaudiot, C., Du, X., Summerfelt, A., **Hare, S.M.**, Bustillo, J.R., Rowland, L.M., Hong, L.E. A Working Memory Related Mechanism of Auditory Hallucinations. *Journal of Abnormal Psychology*. 2019 July; 128(5): 423-430. doi: 10.1037/abn0000432.
 6. Shukla D.K., Chiappelli J.J., Sampath H., Kochunov P., **Hare S.M.**, Wisner K., Rowland L.M., Hong L.E. Aberrant Frontostriatal Connectivity in Negative Symptoms of Schizophrenia. *Schizophrenia Bulletin*. 2019 Sep 11;45(5):1051-1059
 7. **Hare, S.M.**, Chiappelli, J.J., Savransky, A., Adhikari, B.M., Wisner, K., Kvarata, M., Goldwaser, E., Du, X., Chen, S., Rowland, L.M., Kochunov, P., Hong, L.E. The Role of Hippocampal Functional Connectivity on Multisystem Subclinical Abnormalities in Schizophrenia. *Psychosomatic Medicine*. 2020 Jul/Aug;82(6):623-630.
 8. Kochunov P, Fan F, Ryan MC, Hatch KS, Tan S, Jahanshad N, Thompson PM, van Erp TGM, Turner JA, Chen S, Du X, Adhikari B, Bruce H, **Hare S**, Goldwaser E, Kvarata M, Huang J, Tong J, Cui Y, Cao B, Tan Y, Hong LE. Translating ENIGMA schizophrenia findings using the regional vulnerability index: Association with cognition, symptoms, and disease trajectory. *Hum Brain Mapp*. 2020 May 28. doi: 10.1002/hbm.25045. Online ahead of print.
 9. Kochunov P, Zavaliangos-Petropulu A, Jahanshad N, Thompson PM, Ryan MC, Chiappelli J, Chen S, Du X, Hatch K, Adhikari B, Sampath H, **Hare S**, Kvarata M, Goldwaser E, Yang F, Olvera RL, Fox PT, Curran JE, Blangero J, Glahn DC, Tan Y, Hong LE. A White Matter Connection of Schizophrenia and Alzheimer's disease. *Schizophr Bull*. 2021. Feb;47(1):197-206.
 10. **Hare, S.M.**, Chiappelli, J.J., Adhikari, B.M., Kvarata, M., Goldwaser, E., Du, X., Chen, S., Kochunov, P., Hong, L.E. Local and Long-Range Connectivity Patterns of Auditory Perceptual Disturbance in Schizophrenia. *Schizophrenia Research*. 2021. Feb;228:262-270.
 11. Tong J, Zhou Y, Huang J, Zhang P, Fan F, Chen S, Tian B, Cui Y, Tian L, Tan S, Wang Z, Feng W, Yang F, **Hare S**, Goldwaser EL, Bruce HA, Kvarata M, Chen S, Kochunov P, Tan Y, Hong LE. N-methyl-D-aspartate Receptor Antibody and White Matter Deficits in Schizophrenia Treatment-Resistance. *Schizophr Bull*. Published online January 30, 2021.
 12. Savransky A, Chiappelli J, Du X, Carino K, Kvarata M, Bruce H, Kochunov P, Goldwaser E, Tan Y, **Hare S**, Hong LE. Association of working memory and elevated overnight urinary norepinephrine in patients with schizophrenia. *J Psych Res* 2021;137:89-95.
 13. **Hare, S.M.**, Du, X., Adhikari, B.M., Garcia, L., Bruce, H., Kochunov, P., Hong, L.E. Mapping Local and Long-Distance Resting Connectivity Markers of TMS-Related Inhibition Deficits in Schizophrenia. *Neuroimage Clin* 2021 Apr 30; 31:102688. doi: 10.1016/j.nicl.2021.102688. Published Online Ahead of Print.
 14. Kvarata, M., Bruce, H., Chiappelli, J. **Hare, S.**, Goldwaser, E., Sewell, J., Sampath, H., Lightner, S., Marshall, W., Hatch, K., Humphries, E., Ament, S., Shuldiner, M., Mitchell, B. McMahon, F., Kochunov, P., Hong, L.E. Multiple Dimensions of Stress vs. Genetic Effects on Depression. *Translational Psychiatry*. 11, Article number 254
 15. Ge, Y., **Hare, S.**, Chen, G., Waltz, J., Kochunov, P., Hong, E. Chen, S. Bayes Estimate of Primary Threshold in Cluster-wise fMRI Inferences. *Statistics in Medicine*. (In Press).

*denotes trainee or mentee

Submitted or In-Revision

16. Alderson-Day, B., Wilkinson, Green, H., S., **Hare, S.**, Houlders, J., Humpston, C. Thinking About Hallucinations: Why Philosophy Matters. *Cognitive Neuropsychiatry*. (In-Revision).
17. **Hare, S.M.** Hallucinations: A Functional Network Model of How Sensory Representations Become Selected for Conscious Awareness. *Frontiers in Neuroscience*. (Under Review).
18. Fan, F., Huang, J., Tan, S., Wang, Z., Chen, S., Li, Y., **Hare, S.**, Hu, X., Yang, F.D., Tian, B., Kochunov, P., Tan, Y., Hong, L.E. Association of Cortical Thickness and Cognition with Schizophrenia Treatment Resistance. *Psychiatry and Clinical Neurosciences*. (submitted).

Proffered Communications

1. **Hare, S.** Studying Human Morality in the Magnet: An Attempt to Reconcile the Complexity of the Moral Life with the Constraints of Neuroimaging Methods., International Neuroethics Society, New Orleans, LA, poster presentation, 2012
2. **Hare, S.**, Molony, J., McCarthy, S., Brandstatt, K., Skiadopoulos, L., Bharani, K.L., Morrison, R.G. Insight follows Incubation in the Remote Associates Test. *Cognitive Neuroscience Society*, Chicago, IL, poster presentation, 2012
3. **Hare, S.** Can Modern-Day Cerebroscopes Undermine Incurability of Happiness Claims? The Application and Limitations of Neuroimaging Technology. *International Neuroethics Society*, San Diego, CA, poster presentation, 2013
4. **Hare, S.**, Turner, J.A., Vincent, N.A. The Research Domain Criteria and Biomarkers of Auditory Hallucinations in Criminal Responsibility Assessments. *Neuro-Interventions and the Law Conference*, Atlanta, GA, poster presentation, 2014
5. **Hare, S.**, Pasquerello, D., Damaraju, E., Belger, A., Ford, J., Mathalon, D., Mueller, B., Preda, A., van Erp, T., Calhoun, V., Turner, J. The Impact of Hallucination Profile on Resting-State Low-Frequency Fluctuations in Schizophrenia. *The International Congress on Schizophrenia Research*, Colorado Springs, CO, oral presentation, 2015
6. Law, A., **Hare, S.**, Ahmadi, A., Turner, J.A. Functional Network Connectivity in Hallucinating Patients with Schizophrenia. *BrainModes Conference*, Atlanta, GA, poster presentation, 2015
7. **Hare, S.**, Vincent, N. Happiness, Cerebroscopes and Incurability: Prospects for Neuroeudaimonia. *Center for Advanced Brain Imaging*, Atlanta, GA, oral presentation, 2015
8. **Hare, S.**, Ford, J.M., Law, A., Ahmadi, A., Damaraju, E., Belger, A., Bustillo, J., Lee, H.J., Mathalon, D.H., Mueller, B.A., Preda, A., van Erp, T.G.M., Potkin, S.G., Calhoun, V.D., Turner, J.A., Function Biomedical Informatics Research Network (FBIRN). Hallucinations & the Resting-State Brain: A Review of Findings in the FBIRN Dataset. *International Consortium for Hallucinations Research*, Chicago, IL, poster presentation, 2016
9. Persichetti, E., Aral Ahmadi, **Hare, S.**, Turner, J.A. Seed to Voxel Connectivity in Relation to Hallucinations in Schizophrenia. *Georgia Psychological Society*, Atlanta, GA, poster presentation, 2016
10. **Hare, S.**, Schuite-Koops, S., Sommer, I.E., Turner, J.A. Hearing Voices Without Psychosis: An Analysis of Functional Network Connectivity. *Organization for Human Brain Mapping*, Geneva, Switzerland, poster presentation, 2016

11. **Hare, S.** Disrupted Network Cross Talk, Hippocampal Dysfunction and Hallucinations in Schizophrenia. Neuroscience Institute Breakfast Lecture (NIBL), Atlanta, GA, oral presentation, 2017
12. **Hare, S.** Disrupted Network Cross Talk, Hippocampal Dysfunction and Hallucinations in Schizophrenia. International Congress on Schizophrenia Research, San Diego, CA, oral presentation, 2017
13. **Hare, S.,** Turner, J.A. Stigma and the Medicalization of Hearing Voices. Emory University Neuroethics in the News Series, Atlanta, GA, oral presentation, 2017
14. **Hare, S.,** Ford, J.M., Mathalon, D.H., Ahmadi, A., Damaraju, E., Bustillo, J., Belger, A., Lee, H.J., Mueller, B.A., Lim, K.O., Brown, G.G., Preda, A., van Erp, T.G.M., Potkin, S.G., Calhoun, V.D., Turner, J.A. Salience-Default Mode Functional Network Connectivity Linked to Positive and Negative Symptoms of Schizophrenia. Organization for Human Brain Mapping, Singapore, poster presentation, 2018
15. **Hare, S.** Monitoring Self & World: A Novel Network Model of Hallucinations in Schizophrenia. Hard Data Café Series, Atlanta, GA, oral presentation, 2018
16. **Hare, S.** Salience Monitoring and Hallucinations in Schizophrenia. Early Career Hallucinations Research Group Annual Meeting, London, UK, oral presentation, 2018
17. **Hare, S.M.,** Chiappelli, J.J., Savransky, A., Adhikari, B.M., Wisner, K., Kvarata, M., Goldwaser, E., Du, X., Chen, S., Rowland, L.M., Kochunov, P., Hong, L.E. The Role of Hippocampal Functional Connectivity on Multisystem Subclinical Abnormalities in Schizophrenia. Society of Biological Psychiatry Annual Meeting, Chicago, IL, poster presentation, 2019
18. **Hare, S.M.,** Chiappelli, J.J., Adhikari, B.M., Kvarata, M., Goldwaser, E., Du, X., Chen, S., Kochunov, P., Hong, L.E. Local and Long-Range Connectivity Patterns of Auditory Perceptual Disturbance in Schizophrenia. Schizophrenia International Research Society Annual Meeting, Florence, Italy, oral presentation, 2020 (in-person meeting cancelled, COVID-19)
19. **Hare, S.M.,** Chiappelli, J.J., Adhikari, B.M., Kvarata, M., Goldwaser, E., Du, X., Chen, S., Kochunov, P., Hong, L.E. Local and Long-Range Connectivity Patterns of Auditory Perceptual Disturbance in Schizophrenia. Society of Biological Psychiatry Annual Meeting, New York, NY, poster presentation, 2020, (in-person meeting cancelled, COVID-19)
20. **Hare, S.M.** Artificial Intelligence, Neuroimaging and Psychiatry: Sources of Bias. International Neuroethics Society Annual Meeting (virtual), invited oral presentation, 2020
21. **Hare, S.M.,** Du, X., Adhikari, B.M., Chen, S., Mo, C., Summerfelt, A., Kvarata, M.D., Garcia, L., Kochunov, P., Hong, L.E. Mapping Local and Long-Distance Resting Connectivity Markers of TMS-Related Inhibition Reduction in Schizophrenia. Innovators in Neuroscience Symposium Virtual Conference (Joint Symposium organized by Columbia University's Zuckerman Institute and Mount Sinai's Friedman Brain Institute, New York), poster presentation, May 2021.
22. **Hare, S.M.,** Du, X., Adhikari, B.M., Chen, S., Mo, C., Summerfelt, A., Kvarata, M.D., Garcia, L., Kochunov, P., Hong, L.E. A Resting fMRI Investigation of TMS-Related Inhibition Reduction in Schizophrenia. Non-Invasive Brain Stimulation (NIBS) Virtual Workshop 2021 (Workshop organized by University of Minnesota), poster presentation, June 2021.