# Stephanie M Noble

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### Education

#### Postdoctoral Associate, Yale University

New Haven CT

RADIOLOGY & BIOMEDICAL IMAGING

Aug. 2019 - Present

· Advisor: Dustin Scheinost

PhD, Yale University

New Haven CT

INTERDEPARTMENTAL NEUROSCIENCE PROGRAM (INP)

Sept. 2014 - May 2019

- Dissertation: Reliability & Validity of fMRI Mapping Methods
- · Advisor: R. Todd Constable
- Qualified for Candidacy with Distinction

#### **BSE, Princeton University**

Princeton NJ

CHEMICAL & BIOLOGICAL ENGINEERING: BIOTECHNOLOGY & BIOINFORMATICS TRACK

Sept. 2008 - May 2012

- Honors Certificate: Neuroscience: Quantitative & Computational Neuroscience
- · Certificate: Engineering Biology

### Experience \_\_\_\_\_

#### **Elite Warrior Identification, LLC**

Arlington VA

INDEPENDENT CONSULTANT

Mar. 2022 - Present

EEG connectivity analysis and machine learning

#### Source Signal Imaging, LLC

San Diego CA

INDEPENDENT CONSULTANT

Oct. 2013 - Aug 2014

Research and prototyping for EEG source estimation projects

### goBlue Labs, LLC

New Haven CT

FOUNDING CHIEF SCIENCE OFFICER (CSO)

· Real-time EEG source estimation and neurofeedback software

#### **Princeton University**

SENIOR THESIS

Princeton NJ

· Advisor: Clarence E. Schutt

• Thesis: Muscle Contraction as a Markov Process

#### PRINCETON SIEBEL ENERGY GRAND CHALLENGES SUMMER FELLOWSHIP

- · Advisor: Jay B. Benziger
- Topic: "Hydrogen Purification by Electrochemical Pumping" with Prof. Jay B Benziger

### Honors & Awards

#### FELLOWSHIPS & GRANTS

2019 - 2023 NIH 8K00MH122372-02: Constrained Network-Based Multiple Comparison Correction

Principle Investigator: Stephanie Noble

Funding Source: National Institute of Neurological Disorders and Stroke

NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (DSPAN) Award

(F99/K00)

Amount: \$73,168 / year

2018 - 2019 NIH 1F99NS108557-01: Improving Reliability and Validity of fMRI Statistical Methods

Principle Investigator: Stephanie Noble

Funding Source: National Institute of Neurological Disorders and Stroke

NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (DSPAN) Award

(F99/K00)

Amount: \$45,524 / year

2016 - 2018 **NSF DGE1122492** 

Fellow: Stephanie Noble

Funding Source: National Science Foundation Graduate Research Fellowship Program

Amount: \$46,000 / year

#### ACADEMIC HONORS & AWARDS

2019 Abstract Merit Award, Organization for Human Brain Mapping, \$2,000 (15 awa
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2019 Associate Member Nomination, Sigma Xi

2018 - 2019 Program for Excellence in Science Fellowship, AAAS / Science

2018 Annie Le Fellowship, Yale University (stipend & professional enrichment supplement; academic

excellence and service to the community)

2017 Qualified for Candidacy with Distinction

2016 **Best Poster Award**, Yale Biomedical Engineering Retreat

2015 - 2017 Neuroscience Scholars Program Fellowship, Society for Neuroscience (15 awardees, support for

society meeting attendance, society membership, professional enrichment funds)

2012 Honors Certification in Quantitative & Computational Neuroscience

2010 Siebel Energy Grand Challenges Fellowship, Princeton University, \$4,500

2009 - 2012 Howard Hunt Garmany Memorial Scholarship, Hartford Foundation for Public Giving (awarded annually)

#### SCIENCE OUTREACH

2016 WE16 Outreach Award, Society of Women Engineers (to Yale GradSWE; outreach co-chair)

2016 **Seton Elm-Ivy Award**, The Community Foundation for Greater New Haven (to INP Outreach; co-chair)

#### **INDUSTRY**

2013	Innovation Fund Award, Yale Entrepreneurial Institute, \$100,000 (offered) (exclusive award to Yale start-up)
2012	<b>TechStart Accelerator Program Fund Award,</b> Connecticut Innovations, \$25,000 (exclusive award to 5 CT start-ups)
2012	Private Investment, Bridge Builders Collaborative, undisclosed

### **Publications**

 $H-index=13, Accepted=27, First\ Author=7,\ Google\ Scholar: \\ \underline{https://scholar.google.com/citations?user=JxQdvn4AAAAJ}$ 

#### Accepted

- 1. Dai, W., **Noble, S.**, Scheinost, D. 2022 (Accepted). The semi-constrained network-based statistic (scNBS): a new statistical procedure for brain networks inference. MICCAI.
- 2. Jiang, R., Westwater, M.L., **Noble, S.,** Rosenblatt, M., Dai, W., Sui, J., Calhoun, V.D., Scheinost, D. 2022 (In press). Examining the relationship between grip strength, brain structure, and mental health in >40,000 participants. BMC Medicine.
- 3. Greene, A.S., Shen, X., **Noble, S.**, Hahn, A., Arora, J., Tokoglu, F., Spann, M.N., Barron, D.S., Sanacora, G., Srihari, V.H., Woods, S.W., Scheinost, D., Constable, R.T. (Provisionally Accepted). Individuals who defy stereotypical profiles require distinct brain-phenotype models. Nature.
- 4. Tejavibulya, L., Rolison, M., Gao, S., Liang, Q. Peterson, H., Dadashkarimi, J., Farruggia, M., Hahn, A.C., **Noble, S.**, Lichenstein, S.D., Pollatou, A., Dufford, A.J., Scheinost, D. 2021 (In press). Predicting the future of neuroimaging predictive models in psychiatry. Molecular Psychiatry.
- 5. Horien, C., Floris, D.L., Greene, A.S., **Noble, S.**, Rolison, M., Tejavibulya, L., O'Connor, D., McPartland, J.C., Scheinost, D., Chawarska, K., Lake, E.M., Constable, R.T. 2022. Functional connectome-based predictive modelling in autism. Biological Psychiatry.
- 6. Tejavibulya, L., Peterson, H., Greene, A., Gao, S., Rolison, M., **Noble, S.**, Scheinost, D. 2022. Large-scale differences in functional organization of left- and right-handed individuals using whole-brain, data-driven analysis of connectivity. NeuroImage.
- 7. Horien, C., Lee, K., Westwater, M., **Noble, S.**, Tejavibulya, L., Kayani, T., Constable, R.T., Scheinost, D. 2021. A protocol for working with open-source neuroimaging datasets. STAR Protocols.
- 8. Dufford, A.J., **Noble, S.**, Gao, S., Scheinost, D. 2022. The instability of functional connectomes across the first year of life. Developmental Cognitive Neuroscience. (Preprint: <a href="https://doi.org/10.1101/2021.04.14.439877">https://doi.org/10.1101/2021.04.14.439877</a>)
- Ibrahim, K., Noble, S., He, G., Lacadie, C., Crowley, M.J., McCarthy, G., Scheinost, D., and Sukhodolsky, D.G. 2021. Large-Scale Functional Brain Networks of Maladaptive Childhood Aggression Identified by Connectome-Based Predictive Modeling. Molecular Psychiatry.
- 10. Bridgeford, E. W., Wang, S., Yang, Z., Wang, Z., Xu, T., Craddock, C., ... **Noble, S.**, Priebe, C.E., Caffo, B., Milham, M., Zuo, X., Consortium for Reliability and Reproducibility, Vogelstein, J. T. 2021. Eliminating accidental deviations to minimize generalization error and maximize reliability: applications in connectomics and genomics. PLOS Computational Biology. (Preprint: <a href="https://www.biorxiv.org/content/10.1101/802629v7">https://www.biorxiv.org/content/10.1101/802629v7</a>)
- 11. Levitis, E., Gould van Praag, C. D., Gau, R., Heunis, S., DuPre, E., Kiar, G., ... **Noble, S.**, ... Maumet, C. 2021. Centering inclusivity in the design of online conferences. Gigascience. (Preprint: <a href="https://doi.org/10.31234/osf.io/vj5tu">https://doi.org/10.31234/osf.io/vj5tu</a>)

<sup>\* =</sup> all authors contributed equally

- 12. **Noble, S.**, Scheinost, D., Constable, R.T., 2021. A guide to the measurement and interpretation of fMRI test-retest reliability. Current Opinion in Behavioral Sciences, 40, 27-32. (*Invited Review, Deep Imaging Special Issue*).
- 13. Gau, R.\*, **Noble, S.\*,** Heuer, K.\*, Bottenhorn, K.\*, Bilgin, I.P.\*, Yang, Y.\*, Huntenburg, J.\*, Bayer, J.M.M.\*, Bethlehem, R.\*, ... Brainhack community. 2021. Brainhack: developing a culture of open, inclusive, community-driven neuroscience. Neuron. (Preprint: <a href="https://psyarxiv.com/rytig/">https://psyarxiv.com/rytig/</a>)
- 14. Barron, D.S., Gao, S., Dadashkarimi, J., Greene, A.S., Spann, M.N., **Noble, S.**, Lake, E., Krystal, J.H., Constable, R.T., Scheinost, D., 2020. Transdiagnostic, Connectome-Based Prediction of Memory Constructs Across Psychiatric Disorders. Cerebral Cortex. (Preprint: <a href="https://www.biorxiv.org/content/10.1101/638825v1">https://www.biorxiv.org/content/10.1101/638825v1</a>)
- 15. Horien, C., **Noble, S.**, Greene, A.S., Lee, K., Barron, D.S., Gao, S., O'Connor, D., Salehi, M., Dadashkarimi, J., Shen, X., Lake, E.M., Constable, R.T., Scheinost, D., 2020. A Hitchhiker's Guide to Working with Large, Open-Source Neuroimaging Datasets. Nature Human Behavior.
- Noble, S., Scheinost, D., 2020. The Constrained Network-Based Statistic: A New Level of Inference for Neuroimaging. Medical Image Computing and Computer Assisted Intervention—MICCAI 2020: 23rd International Conference, Lima, Peru, October 4–8, 2020, Proceedings, Part VII 23, 458-468.
- 17. Greene, A.S., Gao, S., **Noble, S.**, Scheinost, D., Constable, R.T., 2020. How Tasks Change Whole-Brain Functional Organization to Reveal Brain-Phenotype Relationships. Cell Reports 32, 108066.
- 18. **Noble, S.**, Scheinost, D., & Constable, R. T., 2020. Cluster failure or power failure? Evaluating sensitivity in cluster-level inference. NeuroImage 209, 116468.
- 19. **Noble, S.**, Scheinost, D., Constable, R.T., 2019. A decade of test-retest reliability of functional connectivity: A systematic review and meta-analysis. Neuroimage 203, 116157.
- 20. Dadashkarimi, J., Gao, S., Yeagle, E., **Noble, S.**, Scheinost, D., 2019. A Mass Multivariate Edge-wise Approach for Combining Multiple Connectomes to Improve the Detection of Group Differences. International Workshop on Connectomics in Neuroimaging. Springer, Cham, 64-73.
- 21. Yoo, K., Rosenberg, M.D., **Noble, S.**, Scheinost, D., Constable, R.T., Chun, M.M., 2019. Multivariate approaches improve the reliability and validity of functional connectivity and prediction of individual behaviors. Neuroimage 197, 212-223.
- 22. Scheinost, D., **Noble, S.**, Horien, C., Greene, A.S., Lake, E.M., Salehi, M., Gao, S., Shen, X., O'Connor, D., Barron, D.S., Yip SW., Rosenberg, M.D., Constable, R.T., 2019. Ten simple rules for predictive modeling of individual differences in neuroimaging. Neuroimage.
- 23. Lake, E.M., Finn, E.S., **Noble, S.M.**, Vanderwal, T., Shen, X., Rosenberg, M.D., Spann, M.N., Chun, M.M., Scheinost, D., Constable, R.T., 2019. The Functional Brain Organization of an Individual Allows Prediction of Measures of Social Abilities Transdiagnostically in Autism and Attention-Deficit/Hyperactivity Disorder. Biological psychiatry.
- 24. Horien, C., **Noble, S.**, Finn, E.S., Shen, X., Scheinost, D., Constable, R.T., 2018. Considering factors affecting the connectome-based identification process: Comment on Waller et al. Neuroimage 169, 172-175.
- 25. **Noble, S.**, Spann, M.N., Tokoglu, F., Shen, X., Constable, R.T., Scheinost, D., 2017a. Influences on the test–retest reliability of functional connectivity MRI and its relationship with behavioral utility. Cerebral cortex 27, 5415-5429.
- 26. **Noble, S.**, Scheinost, D., Finn, E.S., Shen, X., Papademetris, X., McEwen, S.C., Bearden, C.E., Addington, J., Goodyear, B., ... Cannon, T.D., Constable, R.T., 2017b. Multisite reliability of MR-based functional connectivity. Neuroimage 146, 959-970.
- 27. Benjamin, C.F., Walshaw, P.D., Hale, K., Gaillard, W.D., Baxter, L.C., Berl, M.M., Polczynska, M., **Noble, S.**, Alkawadri, R., Hirsch, L.J., Constable, R.T., Bookheimer, S.Y., 2017. Presurgical language fMRI: mapping of six critical regions. Human brain mapping 38, 4239-4255.
- 28. Scheinost, D., Tokoglu, F., Shen, X., Finn, E.S., **Noble, S.**, Papademetris, X., Constable, R.T., 2016. Fluctuations in global brain activity are associated with changes in whole-brain connectivity of functional networks. IEEE Transactions on Biomedical Engineering 63, 2540-2549.

#### **Under Review**

- 29. **Noble, S.,** Mejia, M., Zalesky, A., Scheinost, D. Submitted 2022. Leveling up: improving power in fMRI by moving beyond cluster-level inference. (Preprint: https://www.biorxiv.org/content/10.1101/2021.09.23.461354v1)
- 30. Shinn, M., Hu, A, Turner, L, **Noble, S**, Achard, S, Anticevic, A, Scheinost, D, Constable, RT, Lee, D, Bullmore, ET, Murray, JD. Submitted 2021. Spatial and temporal autocorrelation weave human brain networks. (Preprint: <a href="https://www.biorxiv.org/content/10.1101/2021.06.01.446561v1">https://www.biorxiv.org/content/10.1101/2021.06.01.446561v1</a>)
- 31. Dadashkarimi, J., Tejavibulya, L., Gao, S., Greene, A., **Noble, S.**, Constable, R.T., Scheinost, D., Submitted 2021. Combining task connectomes can emphasize or deemphasize group differences in predictive modeling.

#### **Preprints**

32. Rosenblatt, M., Rodriguez, R., Westwater, M. Horien, C., Greene, A., Constable, R.T., **Noble, S.**, Scheinost, D. Connectome-based machine learning models are vulnerable to subtle data manipulations. *OSF*. <a href="https://osf.io/ptuwe">https://osf.io/ptuwe</a>

#### Selected Media

- 33. Interviewed by Yu, A. 2021. Scientists have used fMRI to study brain activity for years. Now, some question the results' reliability. *The Pulse*. WHYY PBS NPR. <a href="https://whyy.org/segments/scientists-used-fmri-to-study-brain-activity-for-years-now-some-question-the-results-reliability/">https://whyy.org/segments/scientists-used-fmri-to-study-brain-activity-for-years-now-some-question-the-results-reliability/</a>
- 34. Interviewed by Proff, I., 2020. Can brain scans transform psychiatry? Medium. <a href="https://medium.com/@irisproff/can-brain-scans-transform-psychiatry-963ff2e5fb4f">https://medium.com/@irisproff/can-brain-scans-transform-psychiatry-963ff2e5fb4f</a>
- 35. Interviewed by Macmillon, T., 2012. Start-Up seeks to tap mind power. New Haven Independent. https://www.newhavenindependent.org/index.php/archives/entry/start-up\_tries\_to\_tap\_mind\_power/

#### Acknowledgements

- 36. Kim, J.S., Greene, M.J., Zlateski, A., Lee, K., Richardson, M., Turaga, S.C., ... & Campos M., 2014. Space–time wiring specificity supports direction selectivity in the retina. Nature, 509(7500), 331. (listed as "curiousimbroglio" in "the Eyewirers").
- 37. Bzymek, Z.M., Vahidi, S., & Spottiswoode, H., 2007. Solutions of the 21st Century—Teaching Computer-Aided Conceptual Design. Computer-Aided Design and Applications, 4(1-4), 459-465.

### Presentations \_\_\_\_\_

#### Talks & Symposia (\*=Invited)

- 1. **Noble, S.** (2022, Scheduled). Panel: Emerging topics in promoting reproducible research from a statistical perspective. Organization for Human Brain Mapping Meeting: Open Science Room. Speakers: Stephanie Noble (moderator), Johanna Bayer (moderator), Amanda Mejia, Bertrand Thirion, Catie Chang, Gang Chen, and Wesley Thompson.
- 2. **Noble, S.** (2022, Scheduled). Symposium: The ups and downs of open science perspectives from early-career and established researchers. Talk: Making open science work for you as an ECR. Organization for Human Brain Mapping Meeting. Speakers: Benjamin de Leener (organizer, speaker), Johanna Bayer (organizer), Stefano Moia (organizer), Linden Parkes (organizer), Priya Suppiah, Cassandra Gould van Praag, and Stephanie Noble.
- 3. **Noble, S.** (2022, Scheduled). RoundTable Discussion: Best practices for promoting diversity and inclusivity across OHBM organizations. Organization for Human Brain Mapping Meeting. Panelist.
- 4. \* Noble, S. (2022). Invited talk. Diversity, equity, and inclusion initiatives across the human brain mapping community. TransMedTech Institute Grand Conference Series.

- 5. \* Noble, S. (2021). Invited talk. Leveling Up: Improving power in functional connectivity by moving beyond cluster-level inference. BraiNets Lab.
- 6. \* Noble, S. (2021). Invited talk. Leveling Up: Improving power in functional connectivity by moving beyond cluster-level inference. Systems Lab, Melbourne University.
- 7. **Noble, S.** (2021). Panel: Aperture and Open Science Roundtable. Organization for Human Brain Mapping Meeting. Speakers: Aki Nikolaidis (moderator), JB Poline (moderator), Ilona Lipp, Stephanie Noble.
- 8. **Noble, S.** (2021). Panel: Ensuring open science is accessible. Organization for Human Brain Mapping Meeting: Open Science Room. Speakers: Stephanie Noble (moderator), Stephen Klusza, Syreeta Nolan, Amanda Klinger, and Alyssa Paparella.
- 9. **Noble, S.** (2021). Symposium: Current frontiers in statistical inference for neuroimaging data. Talk: Cluster failure or power failure? Towards a new level of inference for neuroimaging. Organization for Human Brain Mapping Meeting. Speakers: Bertrand Thirion (organizer), Jeanette Mumford (moderator), Stephanie Noble, and Jonathan D. Rosenblatt.
- 10. \* **Noble, S.** (2021). Invited talk. Leveling Up: Improving power in functional connectivity by moving beyond cluster-level inference. Neurostats Oxford group meeting, Oxford University.
- 11. **Noble, S.** (2021). Symposium: Functional Networks. Talk: Reliability and Inference in functional networks. IEEE International Symposium on Biomedical Imaging. Speakers: Danielle Bassett, Jingyuan Chen, Stephanie Noble, Maria Giulia Preti (coorganizer with Isik Karahanoglu), and Joana Cabral.
- 12. **Noble, S.** (2021). Lightning talk. Leveling Up: Improving power in functional connectivity by moving beyond cluster-level inference. Writing Your Own Blueprint: The NIH Blueprint Diversity Conference.
- 13. \* Noble, S. (2021). Invited talk. Leveling Up: Improving power in functional connectivity by moving beyond cluster-level inference. Cognitive Development Lab, Columbia University.
- 14. \* Noble, S. (2021). Invited talk. Leveling Up: Improving power in functional connectivity by moving beyond cluster-level inference. Innovators in Cognitive Neuroscience. Recording: <a href="https://www.youtube.com/watch?v=lm80J8-dbS0">https://www.youtube.com/watch?v=lm80J8-dbS0</a>
- 15. \* Noble, S. (2020). Invited talk. The constrained network based statistic: A new level of inference for neuroimaging. NIH BRAIN Initiative Alliance's Tools, Tech, Theory and Trainee Series. Neuromatch Conference 3.0.
- 16. **Noble, S.**, Scheinost, D. (2020). Oral Session. The constrained network based statistic: A new level of inference for neuroimaging. Medical Image Computing and Computer Assisted Intervention.
- 17. \* Noble, S., Scheinost, D., Constable, R.T. (2020). Invited talk. A decade of test-retest reliability of functional connectivity. Yale Appetitive Science Seminar Series.
- 18. **Noble, S.,** Dadashkarimi, J., Saltzman, Z., Lacadie, C., Garbus, H., Casetti, D., Onofrey, J., Papademetris, X., Scheinost, D. (2020). Tutorial. Try Biolmage Suite Web, a modern and powerful software for neuroscience. Brainhack NY 2020.
- 19. **Noble, S.**, Dadashkarimi, J., Papademetris, X., Scheinost, D., (2020). Talk & Demo. Web native data analysis with WebAssembly: a BISWeb demo and conversation. Organization for Human Brain Mapping Meeting: Open Science Room. Recording: <a href="https://www.voutube.com/watch?v=9Xgn7Jg7ypo">https://www.voutube.com/watch?v=9Xgn7Jg7ypo</a>
- 20. **Noble, S.**, Scheinost, D., Constable, R.T. (2020). Symposium: Measuring the Individual: Understanding sources of variability in task and resting fMRI. Talk 1: Factors influencing the test-retest reliability of functional connectivity. Organization for Human Brain Mapping Meeting. Speakers: Stephanie Noble, Erin Dickie, Caterina Gratton, and Colin Hawco (organizer).
- 21. Dadashkarimi, J., **Noble, S.**, Greene, A., Constable, R.T., Papademetris, X., Scheinost, D. (2020). Software demo. On Visualization and Interpretation of Complex Connectomic Results. Organization for Human Brain Mapping Meeting.
- 22. (Merit Abstract Award) Noble, S., Scheinost, D., Constable, R.T. (2019). Oral Session. Cluster Failure or Power Failure? Evaluating Sensitivity in Cluster-Level Inference. Organization for Human Brain Mapping Meeting. Recording: <a href="https://www.pathlms.com/ohbm/courses/12238/sections/15843/video\_presentations/138325">https://www.pathlms.com/ohbm/courses/12238/sections/15843/video\_presentations/138325</a>
- 23. **Noble, S.,** Dadashkarimi, J., Saltzman, Z., Lacadie, C., Garbus, H., Casetti, D., Onofrey, J., Papademetris, X., Scheinost, D. (2019). Talk & Demo. Introducing Biolmage Suite Web. Organization for Human Brain Mapping Meeting: Open Science Room.

- 24. **Noble, S.**, Scheinost, D., Constable, R.T. (2019). Symposium: Towards Understanding Individual Variability with Functional Neuroimaging: Big data and deep data perspectives. Talk 1: Factors influencing the test-retest reliability of functional connectivity. Cognitive Neuroscience Society. Speakers: Stephanie Noble, Caterina Gratton (co-chair), Colin Hawco (chair), and Mac Shine.
- 25. **Noble, S.**, Saltzman, Z. (co-presenter), Dadashkarimi, J., Lacadie, C., Garbus, H., Casetti, D., Onofrey, J., Papademetris, X., Scheinost, D. (2019). Tutorial. Introducing Biolmage Suite Web. Brainhack Yale 2019.
- 26. Noble, S., O'Connor, D (co-presenter). (2018). Tutorial. Intro to Machine Learning for fMRI with Nilearn. Brainhack Yale 2018.
- 27. \* Noble, S., Constable, R.T. Scheinost, D (2017). Invited talk. Factors influencing Reliability of Functional Connectivity. Yale Magnetic Resonance Seminar Series.
- 28. \* Noble, S., Scheinost, D., Bookheimer, SY, Walshaw, P, Constable, R.T., Benjamin, C (2015). Invited talk. Initial validation of a novel method of presurgical fMRI language localization through functional connectivity. Yale Epilepsy Research Retreat 2015.
- 29. \* Noble, S., Scheinost, D., Constable, R.T., Cannon, T.D. (2015). Invited talk. Reliability of Multisite Functional Connectivity. Yale NeuroDay 2015.

#### **Posters**

- 30. Tejavibulya, L., Peterson, H., Gao, S., **Noble, S.**, Rolison, M., Scheinost, D. (2021). Identifying differences in functional organization of left- and right-handed individuals using functional connectivity. Flux Congress.
- 31. **Noble, S.**, Scheinost, D. (2021). Leveling up: How broader levels of inference improve power in functional connectivity. Organization for Human Brain Mapping Meeting.
- 32. Dufford, A., **Noble, S.**, Gao, S., Scheinost, D. (2021). Low Infant Functional Connectome-based Identification Accuracy Across the First Year of Life. Organization for Human Brain Mapping Meeting.
- 33. Greene, A.S., Shen, X., **Noble, S.**, Hahn, A., Arora, J., Tokoglu, F., Spann, M., Barron, D.S., Scheinost, D., Constable, R.T. (2021). Predictive modeling reveals subgroup-specific brain-phenotype relationships. Organization for Human Brain Mapping Meeting.
- 34. Dadashkarimi, J., Tejavibulya, L., Gao, S., Greene, A., **Noble, S.**, Constable, R.T., Scheinost, D. (2021). Combining task connectomes can emphasize or deemphasize group differences in predictive modeling. Organization for Human Brain Mapping Meeting.
- 35. Tejavibulya, L., Peterson, H., Gao, S., **Noble, S.**, Rolison, M., Scheinost, D. (2021). Identifying differences in functional organization of left- and right-handed individuals using functional connectivity. Organization for Human Brain Mapping Meeting.
- 36. **Noble, S.**, Dadashkarimi, J., Saltzman, Z., Lacadie, C., Garbus, H., Onofrey, J., Papademetris, X., Scheinost, D. (2021, accepted 2020 and postponed due to COVID19). Bioimage Suite Web: A Simple, Modern, & Powerful Software Suite. International Neuroinformatics Coordinating Facility Assembly.
- 37. Dadashkarimi, J., **Noble, S.**, Qu., A., Saltzman, Z., Shen, X., Lake, E., Constable, R.T., Papademetris, X., Scheinost, D. (2021, accepted 2020 and postponed due to COVID19). A web-based toolkit for visualizing and interpreting complex connectomic results in BISWeb. International Neuroinformatics Coordinating Facility Assembly.
- 38. **Noble, S.**, Scheinost, D. (2020). The Constrained Network-Based Statistic: A New Level of Inference for Neuroimaging. In Medical Image Computing and Computer Assisted Intervention.
- 39. Dadashkarimi, J., **Noble, S.**, Greene, A., Constable, R.T., Papademetris, X., Scheinost, D. (2020). On Visualization and Interpretation of Complex Connectomic Results. Brain Initiative Investigators Meeting.
- 40. Dadashkarimi, J., **Noble, S.**, Greene, A., Constable, R.T., Papademetris, X., Scheinost, D. (2020). On Visualization and Interpretation of Complex Connectomic Results. Organization for Human Brain Mapping Meeting.
- 41. **Noble, S.**, Dadashkarimi, J., Saltzman, Z., Lacadie, C., Garbus, H., Casetti, D., Onofrey, J., Papademetris, X., Scheinost, D. (2019). Introducing Biolmage Suite Web: A Simple, Modern, and Powerful Software Suite. Society for Neuroscience Meeting.

- 42. **Noble, S.**, Dadashkarimi, J., Saltzman, Z., Lacadie, C., Garbus, H., Casetti, D., Onofrey, J., Papademetris, X., Scheinost, D. (2019). Introducing BioImage Suite Web: A Simple, Modern, and Powerful Software Suite. Organization for Human Brain Mapping Meeting.
- 43. **Noble, S.**, Scheinost, D., Constable, R.T. (2019). Cluster Failure or Power Failure? Evaluating the Sensitivity of Cluster-Level Inference. Organization for Human Brain Mapping Meeting.
- 44. Greene, A., Gao, S., **Noble, S.**, Scheinost, D., Constable, R.T. (2019). Task activation and functional connectivity offer distinct insight into brain-behavior relationships. Organization for Human Brain Mapping Meeting.
- 45. **Noble, S.**, Dadashkarimi, J., Saltzman, Z., Lacadie, C., Garbus, H., Casetti, D., Onofrey, J., Papademetris, X., Scheinost, D. (2019). Introducing BioImage Suite Web: A Simple, Modern, and Powerful Software Suite. BRAIN Initiative Investigator's Meeting.
- 46. **Noble, S.**, Scheinost, D., Constable, R.T. (2018). Cluster Failure or Power Failure? Balancing the Scale with Sensitivity. 2018 Society for Neuroscience Meeting.
- 47. **Noble, S.**, Scheinost, D., Constable, R.T. (2018). Cluster Failure or Power Failure? Balancing the Scale with Sensitivity. 2018 Yale Biomedical Imaging Research Retreat.
- 48. **Noble, S.**, Scheinost, D., Constable, R.T. (2018). Cluster Failure or Power Failure? Balancing the Scale with Sensitivity. 2018 Brain Functional Connectivity and Organization Meeting.
- 49. **Noble, S.**, Scheinost, D., Constable, R.T. (2016). Influences on Reliability of Functional Connectivity. 2016 Society for Neuroscience Meeting.
- 50. **Noble, S.**, Scheinost, D., Bookheimer, SY, Walshaw, P, Hirsch, LJ, Spencer, DD, Constable, R.T., Benjamin, C (2016, Feb). Preliminary Support for Presurgical fMRI Language Localization through Functional Connectivity Permutation Testing. 2016 International Neuropsychology Society Meeting.
- 51. (Best Poster Award) Noble, S., Scheinost, D., Cannon, T.D., Constable, R.T. (2015). Reliability of Multisite Functional Connectivity. 2015 Yale Biomedical Imaging Research Retreat.
- 52. **Noble, S.**, Scheinost, D., Cannon, T.D., Constable, R.T. (2015). Reliability of Multisite Functional Connectivity. Society for Neuroscience Annual Meeting.
- 53. **Noble, S.**, Scheinost, D., Cannon, T.D., Constable, R.T. (2015). Reliability of Multisite Functional Connectivity. Society for Neuroscience Annual Meeting: Neuroscience Scholars Program Poster Session.
- 54. **Noble, S.**, Scheinost, D., Bookheimer, S.Y., Walshaw, P., Constable, R.T., Benjamin, C. (2015). Initial validation of a novel method of presurgical fMRI language localization through functional connectivity. 2015 Yale Day of Data 2015.
- 55. Noble, S., Schutt., C.E. (2012). Muscle Contraction as a Markov Process. Annual Princeton CBE Thesis Poster Presentations.
- 56. **Noble, S.**, Bonetti, C.E., Benziger, J.B. (2010). Hydrogen Purification by Electrochemical Pumping. Symposium talk at Princeton Environmental Institute Seibel Energy Grand Challenge Summer of Learning Symposium.
- 57. **Noble, S.**, Bonetti, C.E., Benziger, J.B. (2010). Building a Multi-Stage Hydrogen Pump. Symposium talk at PRISM/PCCM Research Experience for Undergraduates Presentation Session. http://www.princeton.edu/grandchallenges/energy/internships/meet-our-interns/interns-2010/Noble\_Stephanie\_sol.pptx

#### **Industry Demonstrations**

- 58. Noble, S., Poeuv, S., Brewer, J.A. (2013, February). Private demo for popular media reporter (undisclosed). goBlue Labs.
- 59. Noble, S., Poeuv, S., Brewer, J.A. (2012, December). Public demo. TechStart Demo Day. Yale University.
- 60. **Noble, S.**, Poeuv, S., Brewer, J.A. (2012, July). Private demo. Professional Golfer's Association (PGA): Metropolitan Section. Metropolitan PGA Golf Central Offices, Elmsford, NY.
- 61. Noble, S., Poeuv, S., Brewer, J.A. (2012, Sept). Private demo for New Haven Independent Reporter. goBlue Labs.

#### Industry Pitches

- 62. Poeuv, S., **Noble, S.**, Pal, P., Brewer, J.A. (2013, October). goBlue Labs YEI Innovation Fund Pitch. Presentation given at Yale University.
- 63. Poeuv, S., **Noble, S.**, Brewer, J.A. (2013, August). goBlue Labs CI Pre-Seed Program Pitch. Presentation given at Connecticut Innovations in Rocky Hill.
- 64. Poeuv, S., **Noble, S.**, Brewer, J.A. (2012, December). goBlue Labs New Haven Start-up Competition Pitch. Presentation given at Yale University for an anonymous investor.
- 65. Poeuv, S., Noble, S., Brewer, J.A. (2012, December). goBlue Labs TechStart Demo Day Pitch. Presentation given at Yale.
- 66. Poeuv, S., **Noble, S.**, Brewer, J.A. (2012, July). goBlue Labs TechStart Accelerator Competition Pitch. Presentation given at Connecticut Innovations.

### **Teaching & Mentoring**

#### Mentorship

Primary supervisor:

- Tracy Lu (high school student, 2018 2019)
- Samantha Steinberg (high school student, 2016)

Assisted in the supervision of:

- Wei Dai (PhD student, Biostatistics, 2020 present)
- Javid Dadashkarimi (PhD student, Computer Science, 2019 2021)
- Link Tejavibulya (PhD student, Interdepartmental Neuroscience Program, 2019 2020)
- Hannah Petersen (postgraduate fellow, 2019 2022)

Extracurricular mentor:

- Darlis Juvino (PhD student, 2020 present, via YBDIC-PATHS)
- Evelyn Soria (undergraduate, 2016 present)

Prior extracurricular mentorship: five undergraduates (two via Women in Science at Yale, 2014; three via goBlue, 2012 – 2014) and two high school students (one via ManyMentors, 2015; one via goBlue. 2013 - 2014).

Course Organizer: Cultivating open science practices in academic research and culture.

Organization for Human Brain Mapping 2022

litv"

Guest Lecture: "A guide to the measurement and interpretation of fMRI test-retest reliability"

TRAINING IN ADVANCED METHODS IN NEUROIMAGING AND GENETICS 2022

University of Utah 2022

Glasgow, Scotland

Workshop: "Try Biolmage Suite Web, a modern and powerful software for neuroscience"

Brainhack NY 2020

New York University

Private Tutor: Basic Statistics & Data Science (1 student), Introduction to R (1 student)

STEPHANIE M NOBLE | JUNE 2022

Yale University

Workshop: "Introduction to BioImage Suite Web"

Yale University

Brainhack Yale 2019

2019

**Workshop: Connectome-based Predictive Modeling Working Group** 

Yale University 2019 (Monthly)

Workshop: "Intro to Machine Learning for fMRI with Nilearn"

Yale University

BRAINHACK YALE 2018

2018

Teaching Fellow
Introduction to Relativity (ASTR 180)

Yale University

### Ad Hoc Review & Editorial Membership \_\_\_\_\_

Publons: https://publons.com/researcher/4240950/stephanie-noble/peer-review/

Editor (Incoming): Aperture (OHBM), NeuroImage Reports

Reviewer: NeuroImage, NeuroImage: Clinical, Network Neuroscience, Cerebral Cortex, Human Brain Mapping, Proceedings of the National Academy of Sciences, eLife, eNeuro, Nature Communications, Nature Scientific Reports, Social Cognitive and Affective Neuroscience, Psychiatry Research: Neuroimaging, Schizophrenia Bulletin, Behavior Change, Assessment

Grant Review: Deutsche Forschungsgemeinschaft

## Leadership & Service \_\_\_\_\_

OHBM OSSIG 2022 Table Talks Facilitator: "Reproducible Science and my role in it (Thomas Nichols)"	Summer 2022
OHBM OSSIG 2022 Poster Pals Organizer (inaugural poster networking program led by Sarah Goodale)	Summer 2022
Harvard Med / MGH Postdoc Fellowship Seminar Invited Speaker: "Having an Online Presence"	Spring 2022
WINRepo Volunteer	2021-presen
<b>OHBM Open Science Special Interest Group (OSSIG) 2022</b> Inclusivity Officer Co-organized Open Science Room panels and events	2021-2022
OHBM Diversity Inclusivity Committee (DIC) 2022 OSSIG-DIC Liason	2021-2022
Científico Latino Graduate School Mentorship Initiative Application Reviewer (2 students)	Fall 2021
Brainhack Global 2021 Diversity, Equity, & Inclusion Team Lead; Outreach Team; Onboarding Team	Fall 2021
Brainhack OHBM 2021 Brainhack Diversity, Equity, & Justice Team Lead; Social Media Lead; Mentor	Spring 2021
Brainhack Global 2020 Social Lead Organizer	Fall 2020
<b>Neuromatch Conference 3.0</b> Moderator (4 traditional symposia, 1 interactive symposium)	Fall 2020
Columbia University POR Colloquium Invited Talk: Grant Funding Seminar	Fall 2020
FIT'NG Flux Preconference Workshop Moderator: "Data Sharing" Breakout Session	Fall 2020
YBDIC-PATHS Mentoring Program Mentor	2020-2021
OHBM 2020 Club Night Social Lead Organizer	Summer 2020
NIH Blueprint D-SPAN F99/K00 Webinar Panelist <a href="https://www.ninds.nih.gov/News-Events/Events-Proceedings/Events/NIH-Blueprint-D-SPAN-F99K00-Webinar">https://www.ninds.nih.gov/News-Events/Events-Proceedings/Events/NIH-Blueprint-D-SPAN-F99K00-Webinar</a>	Winter 2019
Brainhack Yale 2019 Lead Organizer and Workshop Instructor	Spring 2019
Neuroscience Scholars Program Leadership Meeting Panelist	Summer 2019
Yale Annie Le Fellowship Selection Committee Member	Spring 2019
INP Diversity Recruitment Panel Panelist and SWE Representative	Spring 2019
Brainhack Networks 2019 Team of Experts	Winter 2019
Yale Minority Scientists Research Network Board Member	Fall 2018
NIH Blueprint D-SPAN F99/K00 Twitter Q&A Panelist	Fall 2018
Brainhack Yale 2018: Lead Organizer and Workshop Instructor	Spring 2018
Neuroscience Scholars Program Neuroscience Leadership Conference Invited Member	Summer 2017

INP Speaker Seminar Committee Member	Spring 2017
She Started It "Women in Entrepreneurship" Panelist	Spring 2017
McDougal Center Communications Assistant (paid position managing student communications)	Spring 2016
Yale Graduate Society of Women Engineers Outreach Chair ('15-'17), Mentor, Volunteer, Panelist Led four outreach events, two networking/career building events (panelist)	2014-2017
Mind Matters "Race and Mental Health" Panelist	Spring 2016
Women in Science at Yale Mentor and "Career Strategy" Panelist ('14-'16)	2014-2018
INP Outreach Committee Chair ('15-'16), Volunteer ('14-'17), Speaker ('16, '18 NIH BP-Endure) Six outreach events per year (30-60 students per event)	2014-2016
Yale Graduate Visual Artists Society Founder ('14) and Leader	2014-2016
Yale Office for Graduate Student Development and Diversity Mentor	2014-2017
La Casa Cultural Mentor	2014-2015
ManyMentors / New Haven Science Fair Mentor	2014-2015
Connectionism Art Movement Founder and Event Organizer	2012-2014
Princeton Biomedical Engineering Society President ('11-'12), VP ('10-'11), Cofounder	2010-2012
Open Science Contributions	
Selected contributions (for full list, see <a href="https://github.com/SNeuroble?tab=repositories">https://github.com/SNeuroble?tab=repositories</a> )	
Network-Based Statistic Extensions and Benchmarking Toolbox	code

Network-Based Statistic Extensions and Benchmarking Toolbox	
https://github.com/SNeuroble/NBS_benchmarking	2020
Cluster-Based Inference Benchmarking Toolbox	code
https://github.com/SNeuroble/cluster_power_failure	2019
Yale Test-Retest Dataset    Child Minds   INDI   Institute   Insti	data
http://fcon_1000.projects.nitrc.org/indi/retro/yale_trt.html	2018
Multifactor ICC Toolbox   MATLAB	code
https://github.com/SNeuroble/Multifactor_ICC	2018

### Skills \_\_\_\_\_

Programming Languages

Data Analysis (intermediate-advanced): Matlab, bash, R, Python Software / Web Development (basic): C++, JavaScript, CSS, HTML5, Qt

Languages (basic-intermediate): Latin, Spanish Other

Visual Art (advanced): Graphic design & various media (watercolor, gouache, oil, pastel)