Deborah A. Barany, Ph.D.

Department of Kinesiology • College of Education • University of Georgia •
330 River Rd, Athens, GA 30602 • dbarany@uga.edu

RESEARCH INTERESTS

Goal-directed movement; Functional Neuroimaging; Neurostimulation; Neurorehabilitation

EDUCATION

2013 - 2016 **Ph.D.** Dynamical Neuroscience
University of California, Santa Barbara
Dissertation: *The Neural Dynamics of Continuous Movement*
Advisor: Dr. Scott Grafton

2011 - 2013 **M.A.** Psychology
University of California, Santa Barbara
Thesis: *Decoding Human Sensorimotor Transformations for Goal-Directed Movement*
Advisor: Dr. Scott Grafton

2007 - 2011 **B.A.** Neuroscience with honors and Mathematics with honors, *summa cum laude*
Hamilton College, Clinton, NY
Thesis: *Behavioral and Neural Correlates of Movement Preparation*
Advisor: Dr. Jonathan Vaughan

ACADEMIC APPOINTMENTS

2020 - **Assistant Professor**
Department of Kinesiology, University of Georgia, Athens, GA
Program Faculty, Division of Neuroscience
Director: Brain and Action Laboratory
Co-Director: Neurostimulation Laboratory

2020 - **Assistant Professor**
Augusta University/University of Georgia Medical Partnership, Athens, GA
Adjunct Faculty, Department of Neuroscience and Regenerative Medicine,
Medical College of Georgia, Augusta, GA

2018 - 2020 **Postdoctoral Fellow**
Department of Kinesiology, University of Georgia, Athens, GA
Advisor: Dr. Tarkesh Singh

2016 - 2018 **Postdoctoral Fellow**
Department of Neurology, Emory University, Atlanta, GA
Advisors: Drs. Cathrin Buetefisch and Krish Sathian

EXTERNAL GRANTS AND FELLOWSHIPS

2018 - 2020 **American Heart Association Postdoctoral Fellowship**
Abnormally High Activity in Motor Cortex Following Stroke: Reorganization or Increased Motor Demand?
Role: PI *Award:* $106,532

2014 **Sigma Xi Grants-in-Aid of Research**
Representations of Goal and Direction in Goal-Directed Movements
Role: PI *Award:* $1,000

2011 - 2014 **National Science Foundation Graduate Research Fellowship**
Role: PI *Award:* $90,000

INTERNAL GRANTS AND FELLOWSHIPS

2021 Department of Kinesiology Seed Grant, University of Georgia
2017 NIH Georgia StrokeNet Fellow, Emory University
2016 T32 Postdoctoral Training Grant, Translational Research in Neurology, Emory University
2015 Affiliates Graduate Dissertation Fellowship, University of California, Santa Barbara
2014 Graduate Teaching Fellowship, University of California, Santa Barbara
2011 Elihu Root Fellowship for Graduate Study, Hamilton College
2010 University of Rochester Center for Visual Science Summer Fellowship
2010 Edward Huntington Memorial Mathematical Scholarship, Hamilton College
2008 - 2010 Dean of Faculty Summer Science Research Grant, Hamilton College

HONORS AND AWARDS

2020 American Society for Neurorehabilitation TIGRR Workshop Support
2017 Best poster award, Emory Postdoctoral Research Symposium
2014 Runner-up, Grad Slam 3-minute research talk competition
Graduate Division, University of California, Santa Barbara
2013 Student Travel Award, American Psychological Association
2011 USA Today All-USA College Academic Third Team
2011 Senior Prize in Neuroscience, Hamilton College
2011 Sigma Xi Scientific Research Society, Hamilton College chapter
2011 Capital One Academic All-America Second Team (tennis)
2011 Milton H. Jannone Scholar-Athlete Award, Hamilton College
2010 Barry M. Goldwater Scholarship
National award for undergraduates preparing for career in STEM
2010 Phi Beta Kappa, Hamilton College chapter
2010 Psi Chi Honor Society in Psychology, Hamilton College chapter

PUBLICATIONS

Revill, K.P., **Barany, D.A.,** Vernon, I.M., Rellick, S., Caliban, A., Tran, J., Belagaje, S., Nahab, F., Haut, M.W., & Buetefisch, C.M. (Under Revision). Evaluating the Abnormality of Bilateral Motor Cortex Activity in Subacute Stroke Patients Executing a Unimanual Motor Task with Increasing Demand on Precision. *Frontiers in Neurology*.

*Gómez-Granados, A.M, ***Barany, D. A.,** Schrayer, M., Kurtzer, I., Bonnet, C., & Singh, T. (2021). Age-related deficits in rapid visuomotor decision-making. *Journal of Neurophysiology*. 126(5):1592-1603. doi: 10.1152/jn.00073.2021
**joint first authorship*

Hui, S.C., [and 134 others, including **Barany, D.A.**] (2021). Frequency drift in MR spectroscopy at 3T. *Neuroimage, 241*, 118430, doi: 10.1016/j.neuroimage.2021.118430

Barany, D. A., Revill, K. P., Caliban, A., Vernon, I., Shukla, A., Sathian, K., & Buetefisch, C. M. (2020). Primary motor cortical activity during unimanual movements with increasing demand on precision. *Journal of Neurophysiology*. *124*(3):728-739. doi: 10.1152/jn.00546.2019

*Latchoumane, C.V., ***Barany, D.A.,** Karumbaiah, L., & Singh, T. (2020). Neurostimulation and reach-to-grasp function recovery following acquired brain injury: insight from pre-clinical rodent models and human applications. *Frontiers in Neurology*, 11, 835. doi: 10.3389/fneur.2020.00835.
**joint first authorship*

Barany, D. A., Gómez-Granados, A., Schrayer, M., Cutts, S. A., & Singh, T. (2020). Perceptual decisions about object shape bias visuomotor coordination during rapid interception movements. *Journal of Neurophysiology, 123*(6):2235-2248. doi: 10.1152/jn.00098.2020

Marneweck, M., **Barany, D.A**., Santello, M. & Grafton, S.T. (2018). Neural representations of sensorimotor memory- and digit position-based load force adjustments before the onset of dexterous object manipulation. *The Journal of Neuroscience, 38*(20), 4724-4737. doi: 10.1523/JNEUROSCI.2588-17.2018

Barany, D.A., Shapiro, A.D., & Lee, T.G. (2015). Multivariate fMRI approaches to flexible sensorimotor maps in parietal cortex. *The Journal of Neuroscience, 35*(34), 11763-11765. doi: 10.1523/JNEUROSCI.2307-15.2015

Barany, D.A., Della-Maggiore, V., Viswanathan, S., Cieslak, M., & Grafton, S. T. (2014). Feature interactions enable decoding of sensorimotor transformations for goal-directed movement. The *Journal of Neuroscience, 34*(20), 6860-6873. doi: 10.1523/JNEUROSCI.5173-13.2014

Vaughan, J., **Barany, D.A**., & Rios, T. (2012). The cost of moving with the left hand. *Experimental Brain Research, 220*(1), 11-22. doi: 10.1007/s00221-012-3110-z

Vaughan, J., **Barany, D.A**., Sali, A.W., Jax, S.A., & Rosenbaum, D.A. (2010). Extending Fitts' Law to three-dimensional obstacle-avoidance movements: Support for the posture-based motion planning model. *Experimental Brain Research, 207*(1-2), 133-138. doi: 10.1007/s00221-010-2431-z

CONFERENCE PRESENTATIONS

Regional, National, and International Meetings

Tomei, A. & **Barany, D.A**. (March 2022). Analyzing pediatric head movement during task-based functional MRI. Poster to be presented at the Southeast Regional Clinical & Translational Science Conference, Pine Mountain, GA.

Buetefisch, C.M., Haut., M.W., Revill, K.P., Shaeffer, S., Edwards, L., **Barany, D.A**., Belagaje, S.R., Nahab, F., & Easely, K. (March 2022). The role of contralesional motor cortex during the early

subacute phase of stroke recovery. Poster to be presented at the Annual Meeting of the American Society of Neurorehabilitation, St. Louis, MO.

Barany, D.A., Gallman, E., VanLeuven, A.J., & Fiorella, L. (June 2021). Drawing insight from medical student drawings. Talk presented at the Annual Meeting of the International Association of Medical Science Educators, Virtual Conference.

Barany, D.A., Khan, O.A., Gómez-Granados, A.M., Singh, T., & Modlesky, C.M. (April 2021). Impaired visuomotor integration during rapid reaching and interception in children with cerebral palsy. Poster presented at the Annual Meeting of the American Society of Neurorehabilitation, Virtual Conference.

Revill, K.P., **Barany, D.A**., Tran, J.T., Belagaje, S.R., Nahab, F., & Buetefisch, C.M. (April 2021). The role of contralesional motor cortex during the early subacute phase of stroke recovery. Poster presented at the Annual Meeting of the American Society of Neurorehabilitation, Virtual Conference.

Barany, D. A., Lacey, S.A., Nygaard, L.C., & Sathian, K. (January 2021). Neural basis of sound-symbolic pseudoword-shape correspondences. Poster presented at the Society for Neuroscience Global Connectome, Virtual Conference.

Barany, D. A., Schrayer, M. Gómez-Granados, A.M., & Singh, T. (October 2019). Eye movements necessary for decision-making interfere with eye-hand coordination during rapid reaching. Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL.

Gómez-Granados, A.M., **Barany, D.A.,** Schrayer, M., & Singh, T. (October 2019). Oculomotor deficits in older adults may contribute to deficits in perceptual decision-making and limb motor performance in a rapid sensorimotor task. Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL.

Revill, K.P., **Barany, D.A**., Caliban, A., Vernon, I., Belagaje, S., Nahab, F., & Buetefisch, C.M. (October 2019). Task dependent contralesional motor cortex activation in the early subacute phase of stroke recovery. Poster presented at the Annual Meeting of the American Society of Neurorehabilitation, Chicago, IL.

Barany, D. A., Schrayer, M. Gómez-Granados, A.M., Singh, T. (April 2019). Visual feedback processing during a rapid sensorimotor decision task. Poster presented at the 29th Annual Meeting of the Society for the Neural Control of Movement, Toyama, Japan.

Barany, D. A., Revill, K.P., Caliban, A. Vernon, I., Sathian, K., & Buetefisch, C.M. (July 2018). Primary motor cortical activity patterns during post-stroke hand movements of increasing demand. Poster presented at the Progress in Clinical Motor Control Conference, State College, PA.

Barany, D. A., Revill, K.P., Caliban, A. Vernon, I., Sathian, K., & Buetefisch, C.M. (November 2017). Abnormally high activation in ipsilateral motor cortex after stroke: Reorganization or increased motor demand? Poster presented at the at the Annual Meeting of the American Society of Neurorehabilitation, Baltimore, M.D.

Barany, D. A., Revill, K.P., Caliban, A. Sathian, K., & Buetefisch, C.M. (November 2017). Demand on accuracy of hand movements is associated with distinct neural activity patterns in primary motor cortex. Poster presented at the at the Annual Meeting of the Society for Neuroscience, Washington, D.C.

Marneweck, M., **Barany, D.A.,** & Grafton, S.T. (April 2017). Distinguishable cerebellar and sensorimotor representational patterns for anticipatory control of object manipulation at constrained and unconstrained grasp contacts. Poster presented at 27th Annual Meeting of the Society for the Neural Control of Movement, Dublin, Ireland.

Barany, D. A., Revill, K.P., Caliban, A. Sathian, K., & Buetefisch, C.M. (March 2017). Organization of human motor cortex during demand-dependent movement. Poster presented at the Brain Health Conference, Emory University, Atlanta, GA.

Barany, D. A., Viswanathan, S., & Grafton, S.T. (November 2016). Continuous decoding of movement from fMRI in a goal-directed manual tracking task. Poster presented at the Annual Meeting of the Society for Neuroscience, San Diego, CA.

Schaefer, R., Desai, M., **Barany, D.A**., & Grafton, S.T. (July 2016). Neural activations of metaphor use in music performance. Poster presented at the International Conference for Music Perception and Cognition, San Francisco, CA.

Barany, D. A., Viswanathan, S., Cieslak, M., Caddigan, E., & Grafton, S.T. (October 2015). Decoding the cortical dynamics of continuous tracking movements from fMRI. Talk presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL.

Lee, T.G., **Barany, D. A.,** & Grafton, S.T. (October 2015). Choking under pressure due to high incentives as a change in state distinct from motivated performance. Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL.

Barany, D. A., Viswanathan, S., Cieslak, M., Caddigan, E., & Grafton, S.T. (April 2015). Decoding directional selectivity in the human motor system from the dynamics of continuous tracking. Poster presented at 25th Annual Meeting of the Society for the Neural Control of Movement, Charleston, SC.

Barany, D. A., Gilbert, J., & Grafton, S.T. (March 2015). Planning interceptive actions to moving targets with ambiguous paths. Poster presented at 1st International Convention of Psychological Science, Amsterdam, The Netherlands.

Barany, D. A., Gilbert, J., & Grafton, S.T. (November 2014). Planning reaches to intercept targets with ambiguous moving paths. Poster presented at 55th Annual Meeting of the Psychonomic Society, Long Beach, CA.

Barany, D. A., Della-Maggiore, V., Viswanathan, S., Cieslak, M., & Grafton, S. T. (November 2013). Dissociating intrinsic and extrinsic reference frames in the human motor system. Poster presented at the Annual Meeting of the Society for Neuroscience, San Diego, CA.

Barany, D. A., Della-Maggiore, V., Viswanathan, S., Cieslak, M., & Grafton, S. T. (August 2013). Dissociating movement parameters in the human motor system. Poster presented at the 121st Annual Meeting of the American Psychological Association, Honolulu, HI.
**Abstract selected as finalist for the "Cutting-Edge Research From Emerging Psychological Scientists" poster session*

Cieslak, M., **Barany, D.A.,** Viswanathan, S., & Grafton, S.T. (October 2012). Dynamics of effector selection in a time-dependent decision task. Poster presented at the Annual Meeting of the Society for Neuroscience, New Orleans, LA.

Barany, D.A., Viswanathan, S., & Grafton, S.T. (April 2012). Limited visuomotor adaptation to variable amplitude gains within a movement trajectory. Poster presented at 22nd Annual Meeting of the Society for the Neural Control of Movement, Venice, Italy.

Vaughan, J., Keating, H., **Barany, D. A.,** & Rosenbaum, D. A. (November 2010). Dexterity and reaching around obstacles with a tool. Paper presented at 51st Annual Meeting of the Psychonomic Society, St. Louis, MO.

Vaughan, J., **Barany, D.A**, Sali, A.W, Jax, S.A, & Rosenbaum, D.A. (November 2009). Movement time when circumventing obstacles in a 3-D workspace. Poster presented at 50th Annual Meeting of the Psychonomic Society, Boston, MA.

Barany, D.A, Sali, A.W, & Vaughan, J. (June 2009). Fitting Fitts' Law: Motor lab research in 3-D. Fifth International Conference for Posture-Based Movement, Moss Rehabilitation Research Institute, Philadelphia, PA.

Campus and Local Conferences

Tomei, A. & **Barany, D.A**. (September 2021). Analyzing pediatric head movement during task-based functional MRI. Poster presented at the Annual Medical Partnership Student Research Symposium, Athens, GA.

Kombo, M. & **Barany, D.A**. (July 2021). Eye of the Decider: Examining Smooth Pursuit Eye Movements During Visual Decision-Making. Poster presented at the Summer Undergraduate Research Experience in Neuroscience (NSURE) Symposium, Athens, GA.

Zlatopolsky, D., Gordon, S., & **Barany, D.A**. (April 2021). Assessing the variability of motor cortex excitability using transcranial magnetic stimulation. Talk presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Hlava, Q. & **Barany, D.A**. (April 2021). Altering computational tools to better identify eye movements in healthy older and younger adults. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Lohlein, R., Shakoor, A., & **Barany, D.A**. (April 2021). Engaging smooth pursuit following a decision-related perturbation to understand how decision-making affects motion processing. Talk presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Slater, C., Schrayer, M., & **Barany, D.A**. (April 2021). Evaluation of eye-hand movement patterns and performance during a visuomotor tracking task. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Lohlein, R., **Barany, D.A.,** Gómez-Granados, A.M., & Singh, T. (April 2020). Hand and eye kinematics for varying object velocities during a complex decision-making interception task. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Hlava, Q., **Barany, D.A.,** & Singh, T. (April 2020). Using novel computational tools to improve eye-tracking analysis in older and younger adults. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Shakoor, A., **Barany, D.A.,** & Singh, T. (April 2020). Engaging smooth pursuit following a decision-related perturbation to understand how motor and decision signals affect motion processing. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Turner, E.R., **Barany, D.A.,** & Singh, T. (April 2019). How uncertainty affects motor planning in older adults. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Sial, N., **Barany, D.A.,** & Singh, T. (April 2019). The assessment of GABA levels in motor and visual learning by MRS in Parkinson's Disease. Poster presented at the Center for Undergraduate Opportunities Symposium, Athens, GA.

Gilbert, J.S., **Barany, D.A.,** Volz, L.J., & Grafton, S.T. (May 2016). Unraveling the components of action formation. Poster presented at the Undergraduate Research Symposium, University of California, Santa Barbara.

Berlin, K., **Barany, D.A.,** & Grafton, S.T. (May 2016). Movement planning while already in motion. Poster presented at the Undergraduate Research Symposium, University of California, Santa Barbara

Gilbert, J.S., **Barany, D.A.,** & Grafton, S.T. (May 2015). How our movement influences what we see. Poster presented at the the Undergraduate Research Symposium, University of California, Santa Barbara.

Barany, D.A., & DeAngelis, G.C. (July 2010). Deviations from optimality in the normalization model of multisensory integration. Poster presented at Center for Visual Science Undergraduate Summer Fellowship Poster Session, Rochester, NY.

Barany, D.A, Sali, A.W, & Vaughan, J. (October 2009). Fitting Fitts' Law: Predicting movement times for an obstacle avoidance task in 3-D. Poster presented at Hamilton College Science Poster Session, Clinton, NY.

INVITED AND CAMPUS TALKS

November 2021	*Hand and eye movements during perceptual decision-making.* Frontiers in Neuroscience Seminar, Emory University, Atlanta, GA.
May 2021	*Flexible cortical representations for visually-guided movements.* Atlanta VAMC Rehabilitation R&D Center for Visual and Neurocognitive Rehabilitation, Virtual Presentation.
May 2021	*What can behavior tell us about the brain?* Mechanisms of Disease Seminar, AU/UGA Medical Partnership, Virtual Presentation.
February 2021	*Sensorimotor cortical processing supporting flexible, goal-directed movements.* Neuroscience Seminar Series, University of Georgia, Virtual Presentation.
May 2020	*Perceptual decisions about object shape bias visuomotor coordination during rapid interception movements.* Neuromechanics and Learning Journal Club, Virtual Presentation.
April 2020	*Flexible cortical representations for visually-guided movements.* Department of Kinesiology, University of Georgia, Virtual Presentation.

January 2020 *Somatosensory system organization.* AU/UGA Medical Partnership, Athens, GA

December 2019 *Flexible cortical representations for visually-guided movements.* San Diego State University, San Diego, CA

November 2019 *Flexible cortical representations for visually-guided movements.* Pennsylvania State University, State College, PA

May 2018 *Abnormally high activation in ipsilateral motor cortex after stroke: Reorganization or increased motor demand?* NIH StrokeNet Professional Development Webinar Series

May 2017 *Motor cortex reorganization in patients recovering from stroke.* Center for Neurodegenerative Disease Research Seminar, Emory University, Atlanta, GA

March 2017 *Organization of human motor cortex during demand-dependent movement in healthy subjects and stroke patients.* Neurorehabilitation Seminar, Emory University, Atlanta, GA

November 2015 *Multivoxel pattern analysis of continuous manual tracking.* Dynamical Neuroscience Seminar, University of California, Santa Barbara, Santa Barbara, CA

April 2015 *Using multivoxel pattern analysis of fMRI data to decode goal-directed movement.* Neuroimaging Group Seminar, Emory University, Atlanta, GA

February 2015 *Multisensory perception for action.* Cognition, Perception, and Cognitive Neuroscience Area Seminar, Department of Psychological and Brain Sciences, University of California, Santa Barbara, Santa Barbara, CA

September 2014 *Decoding goal-directed movements from human brain activity.* Psychology Department, Hamilton College, Clinton, NY

July 2014 *Big Ideas that Matter.* GRIT (Ground-breaking Research/Innovative Technology) talks series, University of California, Santa Barbara, Santa Barbara, CA

April 2014 *The Brain in Action.* Grad Slam graduate student competition for best three-minute research talk, University of California, Santa Barbara, Santa Barbara, CA

May 2013 *Dissociating intrinsic and extrinsic reference frames in the human motor system*. Graduate Mini-Convention of the Department of Psychological and Brain Sciences, University of California, Santa Barbara, Santa Barbara, CA

May 2011 *Behavioral and neural correlates of movement preparation: Implications for obstacle avoidance.* Hamilton College Senior Project Presentations in Neuroscience, Clinton, NY.

October 2010 *Examining optimality in two models of multisensory integration.* Hamilton College Math Department Colloquium, Clinton, NY.

PROFESSIONAL DEVELOPMENT

August 2021 - May 2022 **Georgia CTSA Translational Education Mentoring in Science (TEAMS) Program**
Year-long mentoring program for junior investigators across Georgia CTSA institutions

March 2021 - March 2022 **American Society for Neurorehabilitation Virtual Mentoring Program**
Year-long mentoring program for junior investigators in neurorehabilitation

January 2021 **Training in Grantsmanship for Rehabilitation Research Workshop**
Four-day grant-writing workshop for junior investigators

May 2019 **KINARM Robotics Programming Training**
One-week course on programming custom tasks on robotic augmented reality system
Queens University, Kingston, Ontario, Canada

December 2018 **Magnetic Resonance Spectroscopy (MRS) Editing School**
Three-day course covering MRS theory, acquisition, and analysis
Playa del Carmen, Mexico

August 2012 **Summer School in Computational Sensory-Motor Neuroscience**
Two-week course on applying computational approaches to sensorimotor neuroscience
Northwestern University, Evanston, IL

ADDITIONAL RESEARCH TRAINING

Summer 2010 **Undergraduate Fellowship Program in Vision Science**
Department of Brain & Cognitive Sciences, University of Rochester, Rochester, NY
Research: Developed models of multisensory integration at the single neuron level
Advisor: Dr. Greg DeAngelis

Summer 2009 **Undergraduate Researcher in Engel Vision & Imaging Lab**
Department of Psychology, University of Minnesota, Minneapolis, MN
Research: Designed psychophysics study to measure visual cue integration
Advisor: Dr. Stephen Engel

2007 - 2011 **Undergraduate Researcher in Motor Lab**
Department of Psychology, Hamilton College, Clinton, NY
Research: Developed experiments extending Fitts's Law to 3D workspaces
Advisor: Dr. Jonathan Vaughan

TEACHING

Instructor

Fall 2020 - *M1 Small Group Learning Facilitator and Brain & Behavior Instructor*, AU/UGA Medical Partnership

Spring 2017 *Fundamentals of Behavioral Neuroscience*, University of Georgia

Summer 2015 *The Biological Basis of Psychology*, UC Santa Barbara

Teaching Assistant

Fall 2014 *Introduction to Psychology*, UC Santa Barbara

Summer 2014 *Multimedia Learning*, UC Santa Barbara

Summer 2012 *Cognitive Psychology*, UC Santa Barbara

Guest Lecturer

October 2021 *Neuroscience of Habit*, Applying the Science of Habit, First Year Odyssey course, University of Georgia

March 2019 *MRI Analysis in MATLAB*, MATLAB for Sensorimotor Neuroscience, Graduate Course University of Georgia

November 2015 *MRI in Neuroscience Research*, Lab in Biopsychology, Undergraduate course UC Santa Barbara

November 2014 *Neuroscience in the News,* Science in the News, Undergraduate course University of Minnesota

June 2014 *Multi Voxel Pattern Analysis of fMRI Data*, Statistical Analysis of fMRI data, Graduate course, UC Santa Barbara

January 2012 *Introduction to fMRI*, Highland Park Sr. High School, St. Paul, MN

January 2011 *Introduction to Neuroscience*, Highland Park Sr. High School, St. Paul, MN

Outreach

2021 - *Skype a Scientist*
Present to middle- and high-school students about neuroscience topics

October 2020 *UGA Women in Science Mentoring Program*
Faculty mentor

2020 - 2021 *Neuromatch Academy Computational Neuroscience Online Summer School*
Project mentor

September 2017 *STEM Research and Career Symposium*
Abstract and poster judge

March 2016 *University of California Graduate Research Advocacy Day*
Invited to speak to state legislators about research and the importance of graduate education, Sacramento, CA

2014 - 2015 *Science Women Achieving Greatness*
High school outreach group, Center for Science and Engineering Partnerships, University of California, Santa Barbara

2014 *School for Scientific Thought*
Designed and taught 5-day neuroscience course for high school students
University of California, Santa Barbara

2012 - 2016 *UCSB Brain Imaging Center Tours*
Led demonstrations of real-time fMRI for student groups
University of California, Santa Barbara

2009 - 2011 *Neuroscience Lunch*
Organized weekly journal club for students interested in discussing neuroscience in an informal setting, Hamilton College

MENTORING

Major Professor

2021 - Justin McCurdy, PhD student, Neuroscience
2018 - Ana Gómez-Granados, PhD student, Kinesiology

Graduate Committee

2021 - Jacob Harth, PhD student, Neuroscience
2021 - Rachel Johnson, PhD student, Kinesiology
2020 - Margaret Schrayer, MS student, Artificial Intelligence

Graduate Rotation

2021 Brooklyn Crabtree, PhD student, Integrated Life Sciences
2020 Angel Pittman, PhD student, Integrated Life Sciences

Research Assistants

2022 - Ria Doshi, Undergraduate, Biology and Psychology
2022 - Emma Whitman, Undergraduate, College of Public Health
2021 Amelia Tomei, Medical Student, AU/UGA Medical Scholars Program
2021 Madalena Kombo, Undergraduate, UGA NSURE summer program
2021 Zaili Gantt, High School Student, UGA Young Dawgs
2021 - Aryan Arora, Undergraduate, Biology and Psychology
2021 - Asher Khan, Undergraduate, Biology
2021 - Abraham Hussain, Undergraduate, Biology and Psychology
2021 Kristin Nwadike, Undergraduate, Biology
2020 - Sean Gordon, Undergraduate, Biology and Psychology
2020 - Daniel Zlatopolsky, Undergraduate, Biology
2020 - 2021 Carolina Slater, Undergraduate, Biology
2019 - 2021 Quinn Hlava, Undergraduate, Biology and Psychology
2019 - 2021 Aly Shakoor, Undergraduate, Economics
2019 - 2021 Regan Lohlein, Undergraduate, Biology
2018 - 2019 Elizabeth Turner, Undergraduate, Mechanical Engineering
2018 - 2019 Naureen Sial, Undergraduate, Biology
2017 - 2018 Ashwin Shukla, Undergraduate, Computer Science, Emory University
2015 - 2016 Kayli Berlin, Undergraduate, Biopsychology, UCSB
2014 - 2015 Mali Suzuki, Undergraduate, Biopsychology, UCSB

2013 - 2016 Jason Gilbert, Undergraduate, Biochemistry, UCSB
2012 - 2013 Pavithra Rajesh, Undergraduate, Psychology, UCSB

PROFESSIONAL AFFILIATIONS

Affiliate, Owens Institute for Behavioral Research, University of Georgia
Member, American Heart Association
Member, American Society of Neurorehabilitation
Member, Society for the Neural Control of Movement
Member, Society for Neuroscience
Member, International Association of Medical Science Educators