

Vanessa Troiani, PhD

troiani@gmail.com

Academic Appointments

- 2021-present **Associate Professor of Neuroscience**
Department of Basic Sciences
Geisinger Commonwealth School of Medicine
- 2021-present **Associate Professor**
Autism & Developmental Medicine Institute
Geisinger
Lewisburg, PA
- 2017-2021 **Assistant Professor of Neuroscience**
Department of Basic Sciences
Geisinger Commonwealth School of Medicine
- 2014-2021 **Assistant Professor**
Autism & Developmental Medicine Institute
Geisinger
Lewisburg, PA
- Additional Geisinger appointments:
Neuroscience Institute
Department of Imaging Science and Innovation
- 2014-present **Affiliate Faculty**
Department of Neuroscience
Bucknell University
Lewisburg, PA
- 2013-2014 **Postdoctoral Fellow**
Department of Psychology
Temple University
Philadelphia, PA

Education & Research Experience

- 2008-2013 **PhD in Neuroscience**
University of Pennsylvania School of Medicine
Philadelphia, PA
- 2004-2008 **Research Specialist**
Department of Neurology
University of Pennsylvania School of Medicine
Philadelphia, PA
- 2000-2004 **BS, Biological Psychology and Cognitive Science**
University of Michigan, Honors College

Research Statement

My research is focused on brain-behavior relationships and the quantification of trait dimensions that impact brain disorders, with a particular emphasis on brain regions involved in vision and reward pathways. I am an Assistant Professor with appointments in the Neuroscience Institute, Imaging Science and Innovation, and Autism & Developmental Medicine (ADMI). I also direct a Neuropsychology and Neurophysiology Laboratory that is housed within ADMI. In these roles, I am responsible for supervising a diverse array of people and providing expertise and access to state-of-the-art eye tracking and imaging methodologies for other Geisinger researchers and their collaborators.

My laboratory at Geisinger uses several avenues of research in order to foster application of neuroscience methods to 'big data', including development and assessment of neurometrics for use as biomarkers, transdiagnostic phenotyping and analysis, and electronic health record data mining. I am currently a Multi-PI of an R01 that aims to develop a clinical and genetic risk profile for opioid addiction. In this role, I direct a team that acquires in-person and online phenotyping and extracts and analyzes electronic health record data. We have developed an electronic health record phenotype for opioid use disorder (OUD) based on a sample of >36,000 persons and assessed whether the DSM-5 criteria for OUD can be coded using electronic health record chart review. I have designed and managed several REDCap research databases, which now contain data on thousands of individuals. I have also created protocols that successfully identify patients at risk for substance use disorder and routed them to appropriate treatment, indicating my commitment to the learning healthcare system model. My neuroimaging projects have aimed to assess the utility of clinically ascertained brain images from the health record that are not otherwise used for research, as well as to develop novel analytics surrounding sulcogyral patterns in the brain.

My work combines prospective, human subject data captured outside of clinical care (surveys, questionnaires, screeners, cognitive assessments, eye tracking) with clinical information from the EHR and genomics. As one of the only laboratories at Geisinger that combines prospective and clinical EHR data at such a large scale (over 10,000 patients enrolled in the opioid work described below), I have demonstrated that I have the necessary skills to build large clinical databases and lead large, multi-disciplinary projects that combine many data types and acquisition formats, thus building an experimental platform for neuroscience innovation and discovery.

Grants

(Current)

V. Troiani, PI – Geisinger

National Institute of Drug Abuse
5 R01 DA044015

“Clinical and Genetic Study of Prescription Opioid Addiction”

Opioid addiction (OA) is a multifactorial disease characterized by aberrant behavior related to obtaining and using opioids. It often arises from treatment of chronic pain patients with prescription opioid (PO) medications and is recognized as a major public health problem. The magnitude of the risk for developing OA remains controversial, because calculated rates suffer from imprecise and poorly defined terminology. This is underscored by the wide range of estimates of PO addiction (POA) in the literature which vary widely from 1% to > 40% of individuals treated long-term with POs for chronic non-progressive musculo-skeletal pain. Notably, there are few data on clinical characteristics and genetic variants that confer risk of POA. This project is focused on identifying the clinical, genetic, and neural characteristics which convey risk for POA.

V. Troiani, PI

Geisinger Health Plan Quality Fund

“Improving Alcohol Use Disorder Treatment at Geisinger”

The goal of this study is to educate primary care physicians on addiction diagnosis and treatment while testing a model where patients fill out self-report questionnaires via MyGeisinger message. If a patient scores above a critical score on the self-assessment, they are referred to addiction treatment.

V. Troiani, Co-I (PI: Christa Martin, Geisinger)

National Institute of Mental Health
3 Ro1 MH107431-S1

“Gender Differences in Quantitative Measures of Autonomic Function and Clinical Features of the Autism Phenotype “

Research has noted atypical arousal in individuals with ASD and suggested that autonomic function is associated with social impairments. However, little is known about the way in which individual differences in ANS regulation are related to core diagnostic features of ASD. In this project, we will explore whether quantitative characterization of psychosocial symptoms may provide conceptual aid in understanding how arousal may predict clinical features and serve as a mechanism that drives sex differences in the presentation of symptoms. This supplement period has ended, but we are currently in a no cost extension on the current work to complete data analysis, manuscript writing, and dissemination.

V. Troiani, Co-I (PI: Wade Berrettini, University of Pennsylvania)

Pennsylvania DOH

“Pharmacogenetics of Opioid Use Disorder”

Better characterization of the factors that predict reductions in illicit opioid use during opioid substitution therapy (OST) with buprenorphine and methadone will allow clinicians to make more informed therapeutic decisions, both in medication choices as well as other treatment strategies, and improve OST outcomes, bringing precision medicine principles to OST.

V. Troiani, PI – Geisinger

Autism Research Institute

“Integrity of Vision and Eye Morphology in Autism Spectrum Disorder”

The overall objective of the current proposal is to characterize ocular anomalies in patients ASD. We will use a combination of clinical data from the electronic health record and in-person ocular and visual testing in order to assess the link between ocular and visual features and core clinical symptoms of ASD.

(Pending)

V. Troiani, PI – Geisinger

National Institute on Drug Abuse

Electronic Health Record Phenotyping and Genomics of Opioid Addiction

Opioid overdose is a leading cause of preventative death in the U.S. and digital prescription data and health records can dramatically improve our understanding of patterns of opioid use and abuse. In this study, we will develop and validate several opioid phenotype definitions across two health system biobanks (and a larger consortium of health systems) in order to improve our understanding of phenotypic, genetic, and neurobiological contributors to opioid use, abuse, and addiction.

V. Troiani, PI – Geisinger (UCSF: PI Greg Marcus)

Patient-Centered Outcomes Research Institute

“A Comparative Effectiveness Randomized Trial of Regular Alcohol Consumption versus Abstinence”

This is a large-scale, randomized efficacy trial testing abstinence versus limited consumption alcohol messaging that will be provided to patients via the patient’s smart phone via a digital platform. Geisinger will serve as one recruitment site/collaborative study site within the larger PCORnet clinical research network system. Patient outcomes, including hospitalizations, liver disease,

and evidence of problem drinking, will be assessed by linking electronic health record data with patient data captured via the Eureka platform.

V. Troiani, Co-I (UPenn; MPI Schwab, Geisinger: MPI Justice) National Institutes of Health
R01HL160882

“Large-Scale Genetic Analysis of Upper Airway Anatomic Risk Factors for Sleep Apnea in Humans and Mice”

This project will focus on exploring the genetic underpinnings of obstructive sleep apnea (OSA) upper airway anatomic risk factors and extreme OSA phenotypes in both humans and mice. The driving hypothesis is that studying upper airway anatomy and extreme OSA phenotypes will improve our ability to identify relevant genetic risk factors, which are likely to operate through these anatomical mechanisms.

V. Troiani, Co-I (UPenn: PI Alan Pack) National Institutes of Health
P01 HL160471-01

“Developing a P4 Medicine Approach to Obstructive Sleep Apnea”

This project will focus on exploring the genetic underpinnings of obstructive sleep apnea (OSA) upper airway anatomic risk factors and extreme OSA phenotypes in both humans and mice. The driving hypothesis is that studying upper airway anatomy and extreme OSA phenotypes will improve our ability to identify relevant genetic risk factors, which are likely to operate through these anatomical mechanisms.

(Completed)

V. Troiani, Co-PI (E. Peck, Co-PI; B. King, Co-PI) Bucknell-Geisinger Research Initiative

“Using Large-Scale Eye Tracking Studies to Improve Health Care”

The goal of this study is to integrate webcam eye tracking technology with trajectory pattern mining and release a publically available toolbox for eye tracking capture and analysis.

06/01/17-05/31/18

Bucknell-Geisinger Research Initiative

V. Troiani, Co-PI (E. Peck, Co-PI)

“Large Scale Acquisition of Spontaneous Visual Signals Using Low-Cost Webcam

The goal of this study is to use webcam technology to acquire eye gaze signals.

07/01/15-09/30/16

Simons Foundation, NY

V. Troiani, PI - Geisinger

“Pupillometry: A biomarker of the locus coeruleus and hyperfocused attention”

This project is aimed at characterizing pupillometric profiles of children with idiopathic ASD compared to children with ASD caused by a genetic deletion syndrome, 16p11.2.

06/01/2014-05/01/2017; early termination 09/01/2014

NIH/NIMH F32 MH103035-01A1

V. Troiani, PI – Temple University

“Social Motivation in Adults”

The goal of this study was to use fMRI and behavioral questionnaire data to understand individual differences in social-motivated behavior.

12/01/09-11/31/12

National Science Foundation

V. Troiani, PI – University of Pennsylvania

“The underlying role of the PPA: spatial frequency, spatial layout, or contextual associations”

The goal of this study was to use fMRI to investigate the precise visual and computational response properties that drive response in the parahippocampal place area, a region important for navigation and scene perception.

Supportive Role on Grants

NIH R01MH118233 (MPIs: Smoller (Mass General Hospital), Davis (Vanderbilt University))

“PsycheMERGE: Leveraging Electronic Health Records and Genomics for Mental Health Research”

The goals are to phenotypically and genomically validate and harmonize case and control phenotypes across multiple disorders, and then demonstrate the unique value of PsycheMERGE, by (2) building clinically-useful risk surveillance models for mood disorders that also leverage eMERGE network genomewide data, and (3) examining whether EHR- and genomic-based risk profiles are associated with clinically-relevant health outcomes and differences in outcomes. **My role as a collaborator on this grant is to attend biweekly internal and external consortia meetings and contribute my expertise towards phenotypes developed by the group.**

NIH/NIMH R01 MH074090

Ledbetter, D. – Geisinger Health System

“Gene Dosage Imbalance in Neurodevelopmental Disorders”

In this project, which was primarily aimed at identifying copy number variants that show haploinsufficiency resulting in developmental delay, autism, and epilepsy. **My role as a collaborator was to lead a team of research assistants in eye tracking and neuroimaging acquisition of probands and their family members.**

Simons Foundation, NY

C.L. Martin, PI – Geisinger Health System

“Identifying the Gene in 17q12 Responsible for Neuropsychiatric Phenotypes”

This project was aimed at the identification of the gene responsible for the neuropsychiatric phenotypes as presented in individuals with deletions and duplications of 17q12. **My role was to oversee a team of research assistants in eye tracking and neuroimaging acquisition of probands and their family members.**

Simons Foundation, NY

C.L. Martin, Co-PI (Faucett, A. – Geisinger Health System)

“Simons Variation in Individuals (SVIP) Project”

This project is aimed at the identification and recruitment of patients with specific copy number variants (CNVs), such as del 16p11.2, which have a high risk of autism/ASD and other behavioral and psychiatric disorders. **My role on this project was to lead in-person phenotyping efforts in motor and cognitive domains at a family meeting.**

Roche Pharmaceuticals

Cora Taylor, PI – Geisinger Health System

This project was a collaboration with Roche Pharmaceuticals and the Simons Foundation, in which we performed comprehensive phenotyping on individuals with SCN2A deletions and their unaffected family members that traveled to our clinic from around the United States. **My role on this grant was to oversee a team of research assistants and postdoctoral fellows in electroencephalography (EEG) recordings and analysis.**

Joseph A. Ciffolillo '61 Healthcare Technology Inventors Program, Development of an Application for Testing Visual Bias in Children with Autism

Brian King, PI – Bucknell University

In this project, we developed a virtual reality application that could be used in a pilot training study to improve visual attention in children with autism. **My role on this grant was to provide my expertise in visual neuroscience and to oversee a team of computer scientists in application creation, development, and usability of a virtual reality application.**

Publications & Manuscripts (trainee authors denoted with an *)

- Nassar, M. R., & **Troiani, V.** (2021). The stability flexibility tradeoff and the dark side of detail (doi: 10.3758/s13415-020-00848-8, 2020). *Cognitive, Affective, and Behavioral Neuroscience*.
- Patti, M. A*, Wochele, S*, Hu, Y., Regier, P. S*, Childress, A. R., & **Troiani, V.** (2020). Orbitofrontal sulcogyral morphology in patients with cocaine use disorder. *Psychiatry Research: Neuroimaging*, 305, 111174.
- DiCriscio, A. S*, & **Troiani, V.** (2020). Resting and Functional Pupil Response Metrics Indicate Features of Reward Sensitivity and ASD in Children. *Journal of Autism and Developmental Disorders*, 1-20.
- Palumbo, S. A*, Adamson, K. M*, Krishnamurthy, S., Manoharan, S*, Beiler, D*, Seiwel, A*, ... & **Troiani, V.** (2020). Assessment of Probable Opioid Use Disorder Using Electronic Health Record Documentation. *JAMA network open*, 3(9), e2015909-e2015909.
- Troiani, V.**, Patti, M. A*, & Adamson, K*. (2020). The use of the orbitofrontal H-sulcus as a reference frame for value signals. *European Journal of Neuroscience*, 51(9), 1928-1943.
- Troiani, V.** (2020). The future of quantitative pupillometry in health and disease. *Clinical Autonomic Research: Official Journal of the Clinical Autonomic Research Society*, 30(1), 11-12.
- Roy, *A., McMillen, T*, Beiler, D. L*, Snyder, W*, Patti, M*, & **Troiani, V.** (2020). A pipeline to characterize local cortical folds by mapping them to human-interpretable shapes. *bioRxiv*.
- Snyder, W*, & **Troiani, V.** (2020). Behavioural profiling of autism connectivity abnormalities. *BJPsych open*, 6(1).
- DiCriscio, A. S*, Hu, Y., & **Troiani, V.** (2019). Brief Report: Pupillometry, visual perception, and ASD features in a task-switching paradigm. *Journal of autism and developmental disorders*, 49(12), 5086-5099.
- Metpally RP, Krishnamurthy S, Moran KM, Weller AE, Crist RC, Reiner BC, Doyle GA, Ferraro TN, Radhakrishna U, Bahado-Singh R, **Troiani V**, and Berrettini W. (2019). The imperative of clinical and molecular research on neonatal opioid withdrawal syndrome. *Molecular Psychiatry*, 24(11), 1568-1571.
- Snyder, W*, Patti, M*, & **Troiani, V.** (2019). An evaluation of automated tracing for orbitofrontal

cortex sulcogyral pattern typing. *Journal of neuroscience methods*, 326, 108386.

- DiCriscio AS*, Hu Y, & **Troiani V.** (2019) Visual Perception, Task-Induced Pupil Response Trajectories and ASD Features in Children." *Journal of autism and developmental disorders*, April 29: 1-5.
- DiCriscio AS* & **Troiani V.** (2018), Task-induced pupil response and visual perception: Developmental differences in visual selection. *PLOS ONE*. 2018 Dec 26;13(12):e0209556. doi: 10.1371/journal.pone.0209556.
- DiCriscio AS* & **Troiani V.** (2018) The broader autism phenotype and visual perception in children. *Journal of autism and developmental disorders*, March 24: 1-12
- Adamson K* & **Troiani V.** (2018), Distinct and overlapping fusiform activation to faces and food. *NeuroImage*. 174, 393-406.
- Patti MA* & **Troiani V.** (2018). Orbitofrontal sulcogyral morphology is a transdiagnostic indicator of brain dysfunction. *NeuroImage: Clinical*. 17, 910-917.
- DiCriscio AS* & **Troiani V.** (2017). Pupil adaptation corresponds to quantitative measures of autism traits in children. *Scientific reports*, 7(1), 6476.
- DiCriscio AS* & **Troiani V.** (2017). Autism-like traits are associated with enhanced ability to disembed visual forms. *Journal of autism and developmental disorders*. May;47(5):1568-1576. doi: 10.1007/s10803-017-3053-0.
- Zhang H*, Harris L*, Split M*, **Troiani V**§, Olson IR§: Anhedonia and Individual Differences in Orbitofrontal Cortex Sulcogyral Morphology (2016). *Human Brain Mapping*. 37(11):3873-3881. §Co-senior authors.
- DiCriscio AS*, Miller SJ, Hanna EK, Kovac M, Turner-Brown L, Sasson NJ, Sapyta J, **Troiani V**, Dichter GS. Brief Report: Cognitive Control of Social and Nonsocial Visual Attention In Autism. (2016). *Journal of autism and developmental disorders*. May 13:1-9. PMID: 27177893.
- Troiani V**, Dougherty C*, Michael A, Olson IO: Characterization of Face-Selective patches in orbitofrontal cortex. (2016) *Frontiers in Human Neuroscience*. 10:279. doi: 10.3389/fnhum.2016.00279.
- Antezana L*, Mosner MG*, **Troiani V**, Yerys BE. (2016). Social-Emotional Inhibition of Return in Children with Autism Spectrum Disorder Versus Typical Development. *Journal of autism and developmental disorders*. Nov 19:1-1. PMID: 26586556
- Troiani V**, Stigliani A*, Smith M, Epstein R (2014). Multiple Object Characteristics Modulate Response of Scene-Selective Cortex. *Cerebral Cortex*. Apr;24(4):883-97. doi: 10.1093/cercor/bhs364
- Troiani V**, Price E, & Schultz RT (2014). Unseen fearful faces promote amygdala guidance of attention. *Social cognitive and affective neuroscience*,9(2), 133-140.

- Kohls G, Perino M*, Taylor JM*, Mavda EN*, Cayless SJ*, **Troiani V**, Price E, Faja S, Herrington JD & Schultz RT (2013). (2013). The nucleus accumbens is involved in both the pursuit of social reward and the avoidance of social punishment. *Neuropsychologia*, 51(11), 2062-2069.
- Troiani V** & Schultz RT (2013). Amygdala, pulvinar, and inferior parietal cortex contribute to early processing of faces without awareness. *Frontiers in human neuroscience*, 7, 241.
- Kohls G, Chevallier C, **Troiani V**, & Schultz RT (2012). Social Seeking, but not liking, is impaired in autism: neurobiological underpinnings and treatment implications. *Journal of Neurodevelopmental Disorders*, 4(10), doi:10.1186/1866-1955-4-10.
- Chevallier C, Kohls G, **Troiani V**, Brodtkin ES, & Schultz RT (2012). The social motivation hypothesis of autism. *Trends in Cognitive Sciences*, 16(4), 231-239.
- Troiani V**, Clark R, & Grossman M (2011). Impaired verbal comprehension of quantifiers in corticobasal syndrome. *Neuropsychology*, 25(2), 159-165.
- Peelle J, **Troiani V**, Grossman M, & Wingfield A (2011) Hearing loss in older adults affects neural systems supporting speech comprehension. *Journal of Neuroscience*, 31, 12638-12643.
- Grossman M, Eslinger P, **Troiani V**, Anderson C, Avants B, Gee JC, McMillan C, Massimo L, Khan A, & Antani S (2010). The role of ventral medial prefrontal cortex in social decisions: Converging Evidence from fMRI and Frontotemporal Lobar Degeneration. *Neuropsychologia*, 48(12), 3505-12.
- Peelle JE, **Troiani V**, Wingfield A, & Grossman M (2010). Neural processing during older adults' comprehension of spoken sentences: Age differences in resource allocation and connectivity. *Cerebral Cortex*, 20, 773-782.
- Farag C, **Troiani V**, Bonner M, Powers C, & Grossman M (2010). The Hierarchical Organization of Scripts: Converging Evidence from fMRI and Frontotemporal Dementia. *Cerebral Cortex*, 20(10), 2453-63.
- Peelle JE, **Troiani V**, Grossman M (2009). Interaction between content and process in semantic memory: An fMRI study of noun feature knowledge. *Neuropsychologia*, 47, 994-1003.
- Troiani V**, Peelle J, McMillan C, Clark R, Grossman M, (2009). Magnitude and parity as complementary attributes of quantifier statements, *Neuropsychologia*, 47, 2684-2685.
- Troiani V**, Peelle J, Clark R, Grossman M (2009). Is it logical to count on quantifiers? Dissociable neural networks underlying numerical and logical quantifiers. *Neuropsychologia*, 47, 104-111.
- Hubbard EM, Diester I, Cantlon JF, Ansari D, Opstal F, & **Troiani V** (2008). The evolution of numerical cognition: From number neurons to linguistic quantifiers. *Journal of Neuroscience*, 28, 11819-11824.
- Troiani V**, Fernandez-Seara M, Wang Z, Detre J, Ash S, & Grossman M (2008). Narrative Speech Production: an fMRI study using continuous arterial spin labeling. *NeuroImage*, 40(20), 932-939.

- Peelle JE, **Troiani V**, Gee J, Moore P, McMillan C, Vesely L, Grossman M (2008). Sentence comprehension and voxel-based morphometry in progressive nonfluent aphasia, semantic dementia, and nonaphasic frontotemporal dementia. *Journal of Neurolinguistics*, 21, 418-432.
- Koenig P, Smith EE, **Troiani V**, Anderson C, Moore P, & Grossman M (2008). Medial temporal lobe involvement in an implicit memory task: Evidence of collaborating implicit and explicit memory systems from fMRI and Alzheimer's Disease. *Cerebral Cortex*, 18(12), 2831-2843.
- Eslinger P, Moore P, **Troiani V**, Antani S, Cross K, Kwok S, & Grossman M (2007). Oops! Resolving social dilemmas in frontotemporal dementia. *Journal of Neurology, Neurosurgery, & Psychiatry*, 78, 457-460.
- Reilly J, **Troiani V**, Wingfield A & Grossman M (2007). An introduction to hearing loss and screening procedures for behavioral research. *Behavior Research Methods*, 39(3), 667-672.
- Grossman M, **Troiani V**, Koenig P, Work M (2007). How necessary are the stripes of a tiger? Diagnostic and characteristic features in an fMRI study of word meaning. *Neuropsychologia*, 45(5), 1055-1064.
- Reilly J, Cross K, **Troiani V**, & Grossman M (2007). Single word semantic judgments in Semantic Dementia: Do phonology and grammatical class count? *Aphasiology*, 21(6-8), 558-569.
- Novais Santos S, Gee J, Shah M, **Troiani V**, Work M, & Grossman M (2007). Resolving sentence ambiguity with planning and working memory resources: Evidence from fMRI. *NeuroImage*, 37(1), 361-378.
- Grossman M, Murray R, Koenig P, Ash S, Cross K, Moore P, & **Troiani V**. (2007). Verb acquisition and representation in Alzheimer's disease. *Neuropsychologia*. 45(11), 2508-2518.

Books

Neuroscience: A Primer. Ed. Lauren Stutzbach. 1st ed. N.p.: Lulu.com, 2015. Print. (Managing editor and one of many co-authors on this neuroscience primer targeted at 8th graders).

Invited Talks

Seminar at Rowan University School of Medicine (December, 2020), entitled, 'Use of Electronic Health Records to Identify Patients with Substance Use Disorders: Lessons from an Integrated Health System'.

Seminar at National Institute of Alcoholism and Alcohol Abuse (July, 2019), entitled, 'Studying brain disorders in an integrated healthcare system'.

Seminar at Bucknell University for Clinical Neuroscience course (March, 2018), entitled, 'Methods to Study Transdiagnostic markers of Brain Dysfunction'.

Seminar at Temple University for Department of Psychology (February, 2018), entitled, “Utilizing Neuroscience Methods for Genomic Discovery”.

Seminar at University of Pennsylvania, Department of Radiology (February, 2018), entitled, “Orbitofrontal Sulcogyral Morphology as an Indicator of Brain Dysfunction”.

Using Structural and Functional Neuroimaging in Autism & Neurological Research (February, 2016) Obesity Institute, Geisinger Health System.

Using Structural and Functional Neuroimaging in Autism & Neurological Research (July, 2015) Department of Radiation Oncology, Geisinger Health System.

An object-based attention approach to understanding social motivation (October, 2014) Center for Cognitive and Brain Sciences, Penn State University.

Disruption of motivational mechanisms in neurodevelopmental disorders: Exploration of processes of early attention (March, 2015) Brain Health Institute, Rutgers University.

A Genome-First Approach to Studying Developmental Brain Disorders (May, 2015) Nathan Kline Institute.

Seeing without awareness: The impact of motivation as indexed by continuous flash suppression (November, 2012). Center for Cognitive Neuroscience, University of Pennsylvania, Philadelphia, PA.

More than just a pretty face: how social motivation influences visual perception (April, 2012). Art of Science Graduate Student Symposium: University of Pennsylvania, Philadelphia, PA.

Measuring Social Motivation using Continuous Flash Suppression. (August, 2012). University of Maryland, College Park, MD.

Measuring Social Motivation using Continuous Flash Suppression. (March, 2012). Temple University, Philadelphia, PA.

The question of face processing without visual awareness in autism: a continuous flash suppression approach. (October, 2011). IRTG Winter School, University of Pennsylvania, Philadelphia, PA.

Pre-attentive Processing of Faces. (August, 2011). University of Princeton, Princeton, NJ.

Face Processing in Autism Spectrum Disorder: Contributions of Perception & Motivation. (October, 2010). University of Aachen, Aachen, Germany.

What’s Important to the subcortical visual system: Saliency bias in non-conscious perception and implications for autism. (October, 2010). MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom.

Visual Categories and Non-conscious Perception: Optimizing Imaging and Analysis of Subcortical Structures. (August, 2010). University of Florida, Gainesville, FL.

Through the Prism of Autism. (March, 2010). Art of Science Graduate Student Symposium: University of Pennsylvania, Philadelphia, PA.

Magnitude Processing in Autism Spectrum Disorder. (June, 2009). Neuroscience Program Student Research Talk: University of Pennsylvania, Philadelphia, PA.

Visual Context or Spatial Layout: Reliability of the parahippocampal response assessed using multi-voxel pattern analysis. (January, 2009). Neuroscience Program Student Research Talk: University of Pennsylvania, Philadelphia, PA.

Psychophysics of Lightness Perception. (September, 2008). Neuroscience Program Student Research Talk: University of Pennsylvania, Philadelphia, PA.

Conference Presentations (trainee authors denoted with an *)

Troiani, V., Roy, A., and Beiler, D. (2019, October). Utilizing electronic health records to study brain disorders. Talk to be presented at the annual meeting for the Society for Neuroscience, Chicago, IL.

DiCriscio, A.S., & **Troiani, V.** (2019, October). Resting eye tracking metrics indicate features of reward sensitivity and ASD in children. Poster to be presented at the annual meeting for the Society for Neuroscience, Chicago, IL.

Snyder, W., & **Troiani, V.** (2019, June). Behavioral Profiling of Autism Connectivity Abnormalities. Poster presented at the annual meeting for the Organization of Human Brain Mapping.

DiCriscio, A. S., Hu, Y., & **Troiani, V.** (2019). Pupil response trajectories as an index of visual processing across the autism phenotype. *Journal of Vision*, 19(10), 158a-158a.

King, B. R., & **Troiani, V.** (2019). Identifying Scanpath Trends using a Frequent Trajectory Pattern Mining Approach. *Journal of Vision*, 19(10), 307a-307a.

Kruhm, E. E., DiCriscio, A., & **Troiani, V.** (2019, May). The influence of hunger on visual processing of objects. *Journal of Vision*, 19(10), 284c-284c.

Troiani, V., Beiler, D., Ranck, S., Adamson, K., Krishnamurthy, S., Metpally, R., Pendergrass, S., Crist, R., Doyle, G., Ferraro, T., Robishaw, J., Berrettini, W. (2019, January). Quantitative Traits Associated with Opioid Use Disorder. Poster presented at the NIDA Genetics Consortium, National Institute on Drug Abuse, Rockville, MD.

Berrettini, W., **Troiani, V.**, Beiler, D., Ranck, S., Adamson, K., Krishnamurthy, S., Metpally, R., Pendergrass, S., Crist, R., Doyle, G., Ferraro, T., Robishaw, J., (2019, January). Clinical and Pharmacogenetic Studies of Opioid Use Disorder. Talk presented at the NIDA Genetics Consortium, National Institute on Drug Abuse, Rockville, MD.

Metpally, R., Krishnamurthy, S., Clarke, Toni-Kim, Chronowski, J., **Troiani, V.**, Carey, D.J., Crist, R., Berrettini, W. (2019, January). Genomic analyses of prescription opioid dose in chronic opioid exposure. Poster presented at NIDA Genetics Consortium.

Palumbo, S., **Troiani, V.**, Adamson, K., Krishnamurthy, S., Metpally, R., Pendergrass, S., Crist, R., Doyle, G., Ferraro, T., Berrettini, W., Robishaw, J. (2019, January). Electronic Health Records in Evaluating the Potential for Opioid Use Disorder. Poster presented at NIDA Genetics Consortium.

Troiani V., Adamson K. Robishaw, S., Krishnamurthy S., Metpally, R., Jones, L., Pendergrass, S., Chronowski J., Lam C., Crist R., Doyle, G., Ferraro, T., Li, M., Robishaw, J., and Berrettini, W. (April, 2018). Clinical Characteristics of Patients with Prescription Opioid Addiction. Poster presentation at University of Pennsylvania Mahoney Institute of Neurological Sciences Annual Meeting. Philadelphia, PA.

Troiani V., Adamson KM, Robishaw S, Krishnamurthy S, Metpally R, Jones L, Pendergrass S, Chronowski J, Lam C, Crist R, Doyle G, Ferraro T, Robishaw J, & Berrettini WH (January 2018). Clinical and Genetic Risk Factors associated with Opioid Use Disorder in patients with Chronic Pain. National Institute of Drug Abuse Genetics Consortium. Bethesda, MD.

Blass, B* & **Troiani V** (2017). Orbitofrontal gray matter and sulcogyral pattern differences in bipolar disorder. Poster presented at the Society for Neuroscience Annual Meeting. Washington, DC.

Sabatino DiCriscio, A. & **Troiani, V.** (May 2017). Pupil adaptation and quantitative measures of autism traits in children. Poster presented at International Meeting for Autism Research. San Francisco, CA.

Hudac, C.M., DesChamps, T., Cairney, B.E., Ma, R., Wallace, A., **Troiani, V.**, DiCriscio, A.S., Taylor, C.M., and Bernier, R. (May 2017). Dynamic Patterns of Attention in Children with Rare SCN2A Genetic Variants. Poster presented at International Meeting for Autism Research. San Francisco, CA.

DesChamps, T., Hudac, C.M., Cairney, B.E., Ma, R., Wallace, A., **Troiani, V.**, DiCriscio, A.S., Taylor, C.M., and Bernier, R. (May 2017). Atypical Neural Sensory Processing of Auditory Stimulus Change Among Children with De Novo Disruptive Mutations to SCN2A Poster presented at International Meeting for Autism Research. San Francisco, CA.

Sabatino DiCriscio, A. & **Troiani, V.** (May 2017). Superior Abilities to Focus Visual Attention and Pupil Dynamics are Linked with Autism Traits. Poster presented at the Vision Sciences Society Annual Meeting, St. Pete's Beach, FL.

Adamson, K*, Hyde, C*, **Troiani, V.** (May 2016). *Object selectivity or motivational relevance: Fusiform activation to faces and food.* Poster presented at International Meeting for Autism Research, Baltimore, MD.

Sabatino DiCriscio, A.* & **Troiani, V.** (May 2016). Links between Hyperfocused Attention, Pupillometry, and the Locus Coeruleus Across the Broader Autism Phenotype. Poster presented at the annual meeting for the International Meeting for Autism Research. Baltimore, MD.

Patti, M*, Hyde, C*, Adamson, K*, Zhang, H*, Deitrick, S., **Troiani, V.** (May, 2016) *Orbitofrontal cortex sulcogyral anatomy and value signals: An interaction of structure and function.* Poster presented at the annual meeting for the International Meeting For Autism Research, Baltimore, MA.

Adamson, K*, Hyde, C*, **Troiani, V.** (April 2016). *Object selectivity or motivational relevance: Fusiform activation to faces and food.* Poster presented at the 23rd Annual Meeting of the Cognitive Neuroscience

Society, New York City, NY.

Sabatino DiCriscio, A.* & **Troiani, V.** (April 2016). Characterizing Individual Differences in Task-Evoked Pupillary Response and Selective Attention across the Broader Autism Phenotype. Poster presented at the annual meeting for the Cognitive Neuroscience Society. New York City, NY.

Patti, M*., Hyde, C.* , Adamson, K*, Zhang, H*, Deitrick, S., **Troiani, V.** (April, 2016) *Specificity in location of face- and food- selective orbitofrontal cortex nodes and their relationship to individualized sulcogyral anatomy.* Poster presented at the annual meeting for the Cognitive Neuroscience Society, New York, NY.

Troiani, V. & Olson, I.R. *Social butterfly or loner? Individual differences in social interest are reflected in scaled activations of orbitofrontal cortex face-patches .* (April, 2015) Poster presented at the annual meeting for the Social and Affective Neuroscience Society, Boston, MA.

Sabatino DiCriscio, A.* , Evans, D.W., Troiani, V. (April, 2015) *Biological Motion Perception in Children with Developmental Brain Dysfunction (DBD) & Their Parents.* Poster presented at the annual meeting for the Social and Affective Neuroscience Society, Boston, MA.

Sabatino DiCriscio, A.* , **Troiani, V.**, Evans, D.W. (April, 2015). *Visual Exploration in Children with Developmental Brain Dysfunction (DBD) in Response to Social Stimuli and Nonsocial Stimuli.* Poster presented at the annual meeting for the Social and Affective Neuroscience Society, Boston, MA.

Alm, K., Unger, A.* , Nugiel, T.* , Zhang, H*, Rolheiser, T., **Troiani, V.**, and Olson, IR. (May, 2015) *Individual differences in associative learning and delayed retrieval predicted by white matter connectivity.* Poster presented at the annual meeting for the Cognitive Neuroscience Society, San Diego, CA.

Troiani, V. & Olson, I.R. (May, 2015). *Face-Selective Activation in orbitofrontal cortex correlates with social-motivation in the broader autism phenotype.* Poster presented at the annual meeting for the International Meeting for Autism Research, Salt Lake City, UT.

Tonge N*, Schultz RT, **Troiani V**, Kohls G & Chevallier C (May, 2013). A signal detection approach to quantifying social motivation in adults. Poster presented at the annual convention of the American Psychological Society, Washington, D.C.

Troiani V & Schultz RT (May, 2013). Stimulus-driven visual attention engages subcortical visual areas in typical development but not autism. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Herrington JD, Browne AN*, DeLussey C, **Troiani V**, Bartley GK, & Schultz RT (May, 2013). Individual differences in anxiety symptoms predict amygdala function in ASD. Poster presented at the annual meeting of the International Meeting for Autism Research, San Sebastian, Spain.

Troiani V & Schultz RT (April, 2013). Amygdala guides bottom-up attention in typical development but not in autism. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Troiani V, Browne A* & Schultz RT (October, 2012). Development of place- and face- selective cortex extends through adolescence. Poster presented at the annual meeting of the Society for Neuroscience Annual Meeting, New Orleans, LA.

Browne A*, **Troiani V** & Schultz, R.T. (October, 2012). One-step automated functional region of interest (fROI) analysis program for FSL. Poster presented at the annual meeting of the Society for Neuroscience Annual Meeting, New Orleans, LA.

Troiani V, Price E & Schultz RT (June, 2012). Processing of image categories prior to awareness in children with autism spectrum disorder. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Beijing, China.

Browne A*, **Troiani V** & Schultz, RT (June, 2012). Optimal Face Network Localization in autism: A Comparison of Two Methodologies. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Beijing, China.

Troiani V, Price E & Schultz RT (May, 2012). Processing of image categories prior to awareness in children with autism spectrum disorder. Poster presented at the annual meeting of the International Meeting for Autism Research, Toronto, Canada.

Browne A*, **Troiani V** & Schultz RT (May, 2012). Optimal Face Network Localization in autism: A Comparison of Two Methodologies. Poster presented at the annual meeting of the International Meeting for Autism Research, Toronto, Canada.

Perino M*, **Troiani V** et al. (May, 2012). Dynamic Stimuli in a Social Incentive Delay Task: Examining the need for more ecologically valid stimulus sets in ASD Reward Research. Poster presented at the annual meeting of the International Meeting for Autism Research, Toronto, Canada.

Peelle JE, **Troiani V**, Grossman M, Wingfield A (November, 2011). Individual differences in older adults' hearing acuity affect neural systems supporting speech processing. Poster presented at the Neurobiology of Language Conference, Washington, D.C.

Troiani V, Price E & Schultz RT (June, 2011). A salience network supports the processing of unseen faces. Poster presented at the Organization for Human Brain Mapping, Quebec City, Canada.

Peelle JE, **Troiani V**, Grossman M, Wingfield A (June, 2011). Hearing loss in older adults affects neural systems supporting speech processing. Poster presented at the Organization for Human Brain Mapping, Quebec City, Canada.

Peelle JE, **Troiani V**, Grossman M, Wingfield A. (June, 2011). Individual differences in older adults' hearing acuity affect neural systems supporting speech processing. Poster presented at the First International Conference on Cognitive Hearing Science for Communication, Linkoping, Sweden.

Troiani V, Price E, Riley M & Schultz RT (June, 2011). Parietal response reflects preferential processing of unseen faces. Poster presented at the Fifth Annual Workshop on Concepts, Actions, and Objects, Rovereto, Italy.

Peelle, J, **Troiani V**, Reilly J & Grossman M (November, 2010). Interpreting associative processing of nouns and verbs in the brain: Benefits of item analyses in fMRI. Poster presented at the Neurobiology of Language Conference, San Francisco, CA.

Troiani V, Hunyadi E, Riley M, Herrington J & Schultz, R. (June, 2010). Nonconscious Face Processing: Preferential Subcortical Visual and Cortical Spatial Activation. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Barcelona, Spain.

Troiani V, Hunyadi E, Riley M, Herrington J & Schultz RT (May, 2010). Cortical and Subcortical Correlates of Nonconscious Face Processing. Poster presented at the annual meeting of the Visual Sciences Society, Naples, FL.

Troiani V, Hunyadi E, Riley M, Herrington J & Schultz RT (May, 2010). Subcortical Visual Network for Face Processing: Implications for Autism. Poster presented at the annual meeting of the International Meeting for Autism Research, Philadelphia, PA.

Troiani V & Epstein RA (October, 2009). One parahippocampal mechanism or two? Overlap between place and context effects assessed with multi-voxel pattern analysis. Poster presented at Society for Neuroscience Annual Meeting. Chicago, IL.

Troiani V, Peelle JE & Grossman M (June, 2009). Feature differences in Number Knowledge revealed using MVPA. Human Brain Mapping Annual Meeting. San Francisco, California. *Neuroimage*, 47(S1), 89.

Allred S, **Troiani V**, Lohnas L, Jiang L, Radonjic A, Gilchrist A, & Brainard D (May 2009). An ideal observer model predicts lightness matches. Poster presented at Vision Sciences Society. Naples, Florida. 345a, <http://journalofvision.org/9/8/345/>, doi:10.1167/9.8.345.

Peelle JE, **Troiani V**, Wingfield A, & Grossman M (November, 2008). Making up for lost sound: Hearing acuity modulates neural recruitment for speech comprehension in older adults. Paper presented at Society for Neuroscience, Washington, D.C.

Troiani V, Peelle JE, Grossman M (June, 2008). Effective Connectivity in Frontal and Parietal Cortex in Quantifier Comprehension. Poster presented at Human Brain Mapping. Melbourne, Australia.

Troiani V, Peelle JE, Vesely L, Clark R & Grossman M (April, 2008). Selective Number-related Comprehension Deficits in Corticobasal Degeneration. Poster presented at American Academy of Neurology. Chicago, IL.

Troiani V, Peelle JE & Grossman M (April, 2008). Associative Processing of Verbs and Nouns Recruits Distinct Neural Networks. Poster presented at Cognitive Neuroscience Society. San Francisco, CA.

Farag C*, **Troiani V** & Grossman M (April, 2008). Elucidating the Organizational Structure of Scripts-Evidence from Frontotemporal Dementia. Poster presented at American Academy of Neurology. Chicago, IL.

Peelle JE, **Troiani V** & Grossman M (April, 2008). fMRI Reveals Interactions between Phonology and Semantics during auditory lexical processing. Poster presented at Cognitive Neuroscience Society. San Francisco, CA.

Nguyen J*, **Troiani V** & Grossman M (April, 2008). Comprehension of Mass vs. Count Nouns in patients with Corticobasal Degeneration. Poster presented at Cognitive Neuroscience Society. San Francisco, CA.

Farag C*, **Troiani V** & Grossman M (April, 2008). The Hierarchical Organization of Scripts- Evidence from Frontotemporal Dementia and Alzheimer's Disease. Poster presented at Cognitive Neuroscience Society. San Francisco, CA.

Troiani V, Pelle J, Halpern C, Clark R, & Grossman M (October, 2007). Dissociable Numerosity and Executive Components of Quantifier Knowledge. Paper presented at Academy of Aphasia. Washington, D.C. *Brain and Language*, 103, 12-13.

Troiani V, Pelle JE, Halpern CH & Grossman M (November, 2007). Evidence for dissociable precise and approximate mechanisms of quantifier comprehension. Poster presented at Society for Neuroscience. San Diego, California.

Grossman M, **Troiani V**, Anderson C, Eslinger P (November, 2007). Social Cognition: Process and Content Studied with fMRI. Paper presented at Society for Neuroscience. San Diego, CA.

Pelle JE, **Troiani V**, Wingfield A & Grossman M (November, 2007). Neural compensation and sentence comprehension in healthy older adults. Poster presented at Society for Neuroscience. San Diego, California.

Troiani V & Grossman M (2007). Social Feature Knowledge: A Two-Component Model. Human Brain Mapping Annual Meeting. Florence, Italy. *Neuroimage*, 36(S1), 80.

Troiani V & Grossman M (May, 2007). Social feature knowledge: A Two-Component Model. Poster presented at Cognitive Neuroscience Society. New York, New York.

Pelle J, **Troiani V**, Moore P & Grossman M (May, 2007). Neural Correlates of semantic organization: Reliance on Diagnostic vs. Characteristic Features. Poster presented at Cognitive Neuroscience Society. New York, New York.

Troiani V, Ash S & Grossman M (April, 2007). The Neural Basis of Continuous Overt Speech Production: rCBF changes during story narration. Poster presented at American Academy of Neurology. Boston, Massachusetts.

Listerud J, **Troiani V**, Moore P & Grossman M (April, 2007). Patterns of Cortical Atrophy Obtained by Seriation Cluster Analysis which Distinguishes Subgroups of FTD, AD, & CBD. Poster presented at American Academy of Neurology. Boston, Massachusetts.

Troiani V, Ash S, Reilly J & Grossman M (October, 2006). The Neural Correlates of Narrative Discourse: An investigation using arterial spin labeling. Poster presented at Academy of Aphasia. Victoria, Canada. *Brain and Language*, 99, 216-217.

Troiani V, Murray R, & Grossman M (October, 2006). Lexical-semantic encoding of a novel verb elicits rapid activation of LIFG and left angular gyrus: implications for word learning. Paper presented at Society for Neuroscience. Atlanta, Georgia.

Grossman M, **Troiani V**, Koenig P, Moore P & Work M (October, 2006) How necessary are the stripes of a tiger? An fMRI study of the role of feature knowledge in word meaning. Paper presented at Society for Neuroscience. Atlanta, Georgia.

Cross K, Moore P, **Troiani V**, Kwok S, Koenig P & Grossman M (September, 2006). Contributions of Diagnostic and Characteristic Features to Word Meaning in Semantic Dementia. Poster presented at The Association for Frontotemporal Dementia. San Francisco, California.

Reilly J, **Troiani V** & Grossman M (September, 2006). Paradoxical Acoustic Perception in Semantic Dementia: A Case Study. Poster presented at The Association for Frontotemporal Dementia. San Francisco, California.

Troiani V, Ash S, Fernandez-Seara M, Detre J & Grossman M (June, 2006). The Neural Basis of Overt Continuous Speech Production: rCBF changes during story narration. Poster presented at Human Brain Mapping. Florence, Italy. *Neuroimage*, 31(S1), 246.

Grossman M, **Troiani V**, Work M & Koenig P (June, 2006). Two Complementary Approaches to Semantic Memory Activate Distinct Neuroanatomic Distributions. (June, 2006). Poster presented at Human Brain Mapping. Florence, Italy. *Neuroimage*, 31(S1), 329.

Troiani V, Murray R, Work M & Grossman M (April, 2006). An fMRI Investigation into the Semantic Encoding of a Novel Verb. Paper presented at the American Academy of Neurology. San Diego, California

Troiani V, Murray R, Work M & Grossman M (April, 2006). Semantic Encoding of a Novel Verb: an fMRI study. Poster presented at the Cognitive Neuroscience Society. San Francisco, California.

Grossman M, **Troiani V** & Halpern C (April, 2006). The Neural Representation of Quantifiers in Healthy Young Adults. Poster presented at the Cognitive Neuroscience Society. San Francisco, California.

Santos SN, Gee J, Work M, **Troiani V** & Grossman M (April, 2006). fMRI and Neural Network Modeling reveal that Sentences with a Temporary Structural Ambiguity and High Working Memory Load recruit additional Neural Resources for disambiguation. Poster presented at the Cognitive Neuroscience Society. San Francisco, California.

Troiani V, McCawley G, Antani, S., Moore, P., & Grossman, M. (April, 2006). Impaired Linguistic Processing of Quantifiers in Corticobasal Degeneration. Poster presented at the American Academy of Neurology. San Diego, California.

Troiani V, Murray R, Work M & Grossman M (February, 2006). From Nonword to Verb: an fMRI Investigation into Verb Acquisition in Healthy Young Adults. Poster presented at the International Neuropsychological Society. Boston, Massachusetts. *Journal of the International Neuropsychological Society*, 12(S1): 41-42.

Antani S, Eslinger P, McCawley G, **Troiani V**, Moore P & Grossman M (February, 2006). Social Feature Knowledge in Non-Aphasic Frontotemporal Dementia. Poster presented at the International Neuropsychological Society. Boston, Massachusetts. *Journal of the International Neuropsychological Society*, 12(S1): 244.

Reilly J, **Troiani V** & Grossman M (February, 2006). Serial Recall and Word Learning in Semantic Dementia: A Model of Cognitive-Linguistic Loss. Poster presented at the International Neuropsychological Society. Boston, Massachusetts. *Journal of the International Neuropsychological Society*, 12(S1): 115-116.

Santos SN, Gee J, Work M, **Troiani V** & Grossman, M. (February, 2006). Processing sentences with a temporary structural ambiguity recruits dissociable neural executive resources: an fMRI study. Poster presented at the International Neuropsychological Society. Boston, Massachusetts. *Journal of the International Neuropsychological Society*, 12(S1): 10.

Santos SN, Gee J, Work M, **Troiani V** & Grossman, M. (November, 2005). Functional MRI Reveals Recruitment of Additional Neural Resources During Disambiguation of Sentences with a Temporary Structural Ambiguity and High Working Memory Load. Paper presented at the Society for Neuroscience. Washington, D.C.

Santos SN, Gee J, Work M, **Troiani V** & Grossman M (October, 2005). Neural Resources Recruited to disambiguate sentences with a temporary structural ambiguity: An fMRI study. Poster presented at the Royal Dutch Academy of Science: Academy of Aphasia. Amsterdam, Netherlands. *Brain and Language*, 95(1) 62-63.

Santos SN, Gee J, Work M, **Troiani V** & Grossman, M. (June, 2005). Sentences with temporary structural ambiguities recruit additional neural resources for disambiguation: fMRI study. Poster presented at the Organization for Human Brain Mapping. Toronto, Ontario, Canada. *Neuroimage*, 26(S1): 1079.

Antani S, Eslinger P, McCawley G, **Troiani V**, Moore P & Grossman M (April, 2005). Social Feature Knowledge in Non-Aphasic Frontotemporal Dementia. Poster presented at the American Academy of Neurology. Miami, Florida.

Courses & Seminars

- Clinical Neuroscience (2017)
- Teaching Assistant: Introduction to Brain & Behavior (2011)
- Coordinator/Teacher for Cognitive Neuroscience Independent Study (2010)
- Lecturer: Introduction to Neuroscience, Upward Bound Summer Program (2008, 2009, 2010, 2011)
- Leadership Committee: Brain Bee (2010, 2011)
- Lecturer: Neuroscience Boot Camp (2010, 2011, 2012)
- Managing Editor: Introduction to Neuroscience Primer for Upward Bound
- Lecturer: Cognitive Neuroscience, Temple University (2013)
- Lecturer: Introduction to Neuroscience, Bucknell University (2015)
- Advice on the Brain and Aging Workshops (2006-2008)

Mentorship

2019-present	Shane Kozick	Undergraduate Student	(Bucknell)
2018-present	Arnab Roy	Staff Scientist	(Geisinger)
2018-present	Sarah Palumbo	Medical Student	(FAU)
2017-present	Will Snyder	Undergraduate Student	(Bucknell)
2018-2019	Shivani Manoharan	Medical Student	(Cambridge)
2018-2021	Kayla Tormohlen	Graduate Student	(John's Hopkins)
2017-2018	Olivia Langa	Undergraduate Student	(Bucknell)
2016-2018	Madeline Minneci	Undergraduate Student	(Bucknell)
2016-2018	Bethany Blass	Undergraduate Student	(Bucknell)
2016-2018	Raakel Vuojolainen	Undergraduate Student	(Bucknell)
2016-2018	Tongyu Yang	Undergraduate Student	(Bucknell)
2016-2017	Morgan Eckenroth	Undergraduate Student	(Bucknell)
2015-2016	Katherine Dent	Undergraduate Student	(Penn State)
2015-present	Marisa Patti	Research Assistant	(Geisinger)
2014-present	Antoinette DiCriscio	Staff Scientist	(Geisinger)
2014-2-19	Kayleigh Adamson	Research Assistant	(Geisinger)
2015-2017	Carly Hyde	Undergraduate Student	(Bucknell)
2013-2016	Hyden Zhang	Research Assistant	(Temple University)
2013-2014	Morgan Rohrbach	Undergraduate Student	(Temple University)
2013-2014	Kathryn Russo	Undergraduate Student	(Temple University)
2013-2014	Nausheen Baksh	Undergraduate Student	(Temple University)
2010-2013	Aaron Browne	Research Assistant	(University of Pennsylvania)
2010-2011	Naomi Krieger	Undergraduate student	(University of Pennsylvania)
2006-2008	Christine Farag	Research Assistant	(University of Pennsylvania)

Service

General

NSF Graduate Fellowship Program Resource Person 2009 – present

NRSA Fellowship Program Resource Person 2013-present

Ad Hoc Reviewer 2008 – present

Attention, Perception & Psychophysics; Brain and Language; Cerebral Cortex; Cognitive, Behavioral and Affective Neuroscience; Cognitive Neuroscience; Journal of Cognitive Neuroscience; Cortex; Journal of Experimental Psychology: Human Perception and Performance; Journal of Autism and Developmental Disorders; NeuroImage; Neuron; Neuropsychologia; Visual Cognition; Social, Cognitive, and Affective Neuroscience; Biological Psychology; Scientific Reports; Clinical Autonomic Research;

University of Pennsylvania

Speaker for Undergraduate student career events (Temple University and University of Pennsylvania)
2008 – 2014

Coordinator and Lecturer, Upward Bound Summer Program

Temple University

Speaker for Undergraduate student career workshops, 2013 – 2014

Geisinger (2014-present)

Opioids and Integrative Medicine Committee

MyCode Post-engagement Committee

Director of Acquisition for MR Core

Coordinator, ADMI Research Seminar

Coordination and oversight of ADMI wiki

Organization of specialty clinic research protocol

Organization of cognitive phenotyping at family meetings (17q11.2, SVIP, dup15)

Administration/oversight of Research Server for ADMI

Redcap security data manager backup

MRI pilot program committee

Awards & Honors

2020	Chosen as one of 31 Outstanding Women Leaders at Geisinger
2016	Inducted into Berwick's Academic Hall of Fame
2012	President Gutmann Leadership Award
2012	National Graduate Student NIH Conference Travel Grant
2010	Cold Spring Harbor Travel Award
2008	National Science Foundation Graduate Fellowship
2008, 2011	Human Brain Mapping Travel Award
2007, 2009, 2010, 2011	Center for Functional Neuroimaging Travel Grant
2000-2004	National Merit Scholarship

Professional Memberships

- Society for Neuroscience
- Organization for Human Brain Mapping
- Vision Sciences Society
- International Society for Autism Research
- Cognitive Neuroscience Society