
CURRICULUM VITAE

MARIEL ROBERTS

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New York, NY 10003

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EDUCATION

New York University
Ph.D., Experimental Psychology
Cognition & Perception Program
Doctoral Advisor: Marisa Carrasco, Ph.D., M.A.
Dissertation: "Attention and perceptual learning in special populations"
New York, NY; 2014 - Spring 2020 (Expected graduation)

University of Pennsylvania
B.A. Biological Basis of Behavior with Honors
Magna Cum Laude
Philadelphia, PA; 2008-2012

PUBLICATIONS

Roberts, M. & Carrasco, M. Microsaccades and exogenous spatial attention. *In Prep.*

Roberts, M. & Carrasco, M. The role of exogenous attention during visual perceptual learning in adults with amblyopia. *In Prep.*

Roberts, M., Ashinoff, B., Castellanos, F. X., & Carrasco, M. (2017). When attention is intact in ADHD. *Psychonomic Bulletin & Review*, 25(4), 1423-1434. doi: 10.3758/s13423-017-1407-4. PMCID: PMC29181782.

Roberts, M., Cymerman, R., Smith, R. T., Kiorpes, L., & Carrasco, M. (2016). Covert spatial attention is functionally intact in amblyopic human adults. *Journal of Vision*, 16(15), 1-19. doi: 10.1167/16.15.30. PMCID: PMC5215291.

Dugué, L., **Roberts, M.**, & Carrasco, M. (2016). Attention reorients periodically. *Current Biology*, 26(12), 1595-1601. doi: 10.1016/j.cub.2016.04.046. PMCID: PMC4935543.

Cavanaugh, M. R., Zhang, R., Melnick, M. D., Das, A., **Roberts, M.**, Tadin, D., Carrasco, M. & Huxlin, K. R. (2015). Visual recovery in cortical blindness is limited by high internal noise. *Journal of Vision*, 15(10): 9, 1-18. doi:10.1167/15.10.9. PMCID: PMC4585331.

He, K., Woodman, N., Boaglio, S., **Roberts, M.**, Supekar, S., & Maldonado, J. (2015). Molecular phylogeny supports repeated adaptation to burrowing within small-eared shrews of the genus of *Cryptotis* (Eulipotyphla, Soricidae). *PloS ONE*, 10(10), e0140280. doi:10.1371/journal.pone.0140280. PMCID: PMC4619083.

CONFERENCE ABSTRACTS & POSTERS

- Roberts, M.** & Carrasco, M. (2019). Exogenous attention and anticipatory fixation stability. Poster presented at the *Vision Sciences Society Conference, St. Pete Beach, FL*.
- Purokayastha, S., **Roberts, M.** & Carrasco, M. (2019). Does endogenous attention compensate for spatial performance fields? Poster presented at the *Vision Sciences Society Conference, St. Pete Beach, FL*.
- Roberts, M.**, Ashinoff, B.K., Castellanos, F.X. & Carrasco, M. (2017). Endogenous and exogenous attention are functionally intact in adults with ADHD. *Journal of Vision*, 17(10): 699-699.
- Dugué, L., **Roberts, M.** & Carrasco, M. (2016). Attention reorients periodically. Center for Visual Science 30th Annual Symposium: The Future of Attention, University of Rochester, Rochester, NY.
- Ashinoff, B., **Roberts, M.**, Castellanos, F.X. & Carrasco, M. (2015). Exogenous spatial attention in adults with ADHD is intact. *Perception*, 44:110-111.
- Dugué, L., **Roberts, M.** & Carrasco, M. (2015). Occipital TMS modulates the effect of attention on contrast sensitivity. *Perception*, 44:110-111.
- Roberts, M.** & Carrasco, M. (2015). Amblyopic adults demonstrate intact endogenous spatial attention. *Journal of Vision*, 15(12): 1339-1339.
- Carrasco, M., **Roberts, M.** & Kiorpes, L. (2014). Exogenous spatial attention in amblyopic adults is intact. *Perception*, 43, S8.
- Carrasco, M., **Roberts, M.**, Cymerman, R., Smith, R. T. & Kiorpes, L. (2014). Intact functioning of exogenous spatial attention in amblyopic adults. *Journal of Vision*, 14(10): 539-539.
- Cavanaugh, M. , Melnick, M. , Zhang, R., **Roberts, M.**, Das, A., Tadin, D., Carrasco, M. & Huxlin, K. (2014). Residual inefficiencies of recovered vision in cortically blind fields—insights from the equivalent noise analysis. *Journal of Vision*, 14(10): 659-659.

TALKS

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| NYU Cognition & Perception 4th year talk | May 2018 |
| "Attention and perceptual learning in amblyopia" | |
| NYU Cognition & Perception Mini-Convention | September 2016 |
| "Attention reorients periodically" | |
| NYU Cognition & Perception Mini-Convention | September 2015 |
| "Covert spatial attention is functionally intact in amblyopic human adults" | |

University of Pennsylvania Honors Research Symposium	May 2012
"Use of 18F-FDG-PET for quantitative assessment of temporal lobe epilepsy on brain metabolism"	

NYU Center for Neural Science SURP Research Symposium	July 2011
"The effect of attention on visual perceptual learning: defying location specificity?"	

RESEARCH EXPERIENCE

Department of Psychology, New York University	New York, NY
<i>Lab Manager</i> , Principal Investigator: Marisa Carrasco, Ph.D., M.A	Summer 2012-Fall 2014
Department of Radiology, Hospital of University of Pennsylvania	Philadelphia, PA
<i>Research Assistant</i> , Principal Investigator: Abass Alavi, M.D.	Fall 2011-Spring 2012
Department of Psychology, New York University	New York, NY
<i>Research Intern (Funded by NSF)</i> , Principal Investigator: Marisa Carrasco, Ph.D., M.A.	Summer 2011
Center for Visual Science, University of Rochester Medical Center	Rochester, NY
<i>Research Intern</i> , Principal Investigator: Tania Pasternak, Ph.D	Summer 2010
Center for Conservation & Evolutionary Genetics, Smithsonian Institution	Washington D.C.
<i>Research Intern</i> , Principal Investigator: Jesús E. Maldonado, Ph.D., M.S.	Summer 2009

HONORS, AWARDS & FELLOWSHIPS

NYU GSAS Dean's Dissertation Fellowship	Fall 2019-Spring 2020
Psych. Dept. Nominee: GSAS Dean's Outstanding Graduate Student Teaching Award	Spring 2019
National Science Foundation Graduate Research Fellow	Fall 2015-Summer 2017; Fall 2018-Spr 2019
NYU Vision Training Grant	Fall 2017-Summer 2018
NYU Dean's Student Travel Grant	Spring 2015
Recipient of NYU MacCracken Program Award	Fall 2014-Summer 2015
Member of Nu Rho Psi, National Honor Society in Neuroscience	2012
Dean's List of The University of Pennsylvania	2009-2012
Kodak Young Leaders Award and Scholarship at Pittsford Sutherland High School	2008

RELEVANT COURSEWORK & TEACHING WORKSHOPS

NYU Teaching (CAT) Workshop: Motivating Student Learning	Spring 2019
NYU Teaching (CAT) Workshop: How We Learn	Spring 2019
NYU Teaching (CAT) Workshop: How To Be a Researcher & Teacher	Spring 2019
NYU Teaching (CAT) Workshop: Discussion-Based Teaching	Spring 2019

Preparing Future Faculty 2: Achieving Success through Communication	Spring 2019
Seminar in Eye Movements (auditing)	Spring 2019
Seminar in Attention & Perception	Spring 2019; Spring 2017
Learning & Memory	Spring 2018
Individual Development Plan	Fall 2017
Psychophysics (audited)	Fall 2017
Math Tools II: Simulation & Data Analysis	Spring 2016
Perception	Fall 2015
Functional Magnetic Resonance Imaging Lab	Fall 2015
Responsible Conduct in Research Training	Spring 2015
Sensory and Motor Neural Science	Spring 2015
Cognitive Neuroscience	Spring 2015
Neuroanatomy	January 2015
Math Tools I for Cognitive Science and Neuroscience	Fall 2014

PROFESSIONAL MEMBERSHIPS

Reviewer for *Scientific Reports*
Vision Sciences Society
New York Academy of Sciences
braiNY: Greater New York City Chapter of Society for Neuroscience
NOGN: Neuroscience Outreach Group at NYU

TEACHING

Perception, NYU CAS course in Psychology Instructor	New York, NY Summer 2019
Cognitive Neuroscience, NYU CAS course in Psychology Teaching Assistant, Instructor: Professor Clay Curtis	New York, NY Fall 2018
How We See, NYU Undergraduate Freshman Seminar Guest Lecturer, Instructor: Professor Marisa Carrasco	New York, NY Fall 2018
Perception, NYU CAS course in Psychology Teaching Assistant, Instructor: Professor Jonathan Winawer	New York, NY Fall 2017
Perception, NYU CAS course in Psychology Tutor, Instructor: Jing Yang Zhou	New York, NY Summer 2017
How We See, NYU Undergraduate Freshman Seminar Teaching Assistant, Instructor: Professor Marisa Carrasco	New York, NY Fall 2014

MENTORSHIP

NYU GSAS Mentorship Program Graduate Student Mentor	New York, NY Spring 2018-Present
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NYU Undergraduate Research Internship Research Mentor to two DURF grant awardee undergraduate students	New York, NY Spring 2018-Present
Allendale Columbia High School Science Research & Writing Class Remote Research Advisor to high school student	Spring 2019 Rochester, NY
NYU Summer Undergraduate Research Program Research Mentor to Summer Undergraduate Research Program participant	New York, NY Summer 2017
Co-supervision of NYU Undergraduate Honors Research Thesis Research Mentor	New York, NY Fall 2012-Spring 2013

OUTREACH

Biobus, Brain Awareness Week Volunteer at BraiNY station	Harlem, NY March 19th, 2019
NYU Women in Science mixer Graduate student mentor	Silver Building, NYU November 15th, 2018
World Science Festival Volunteer at BraiNY station	Washington Square Park, NY June 3rd, 2018
Biobus, Brain Awareness Week Volunteer at BraiNY station	Harlem, NY March 17th, 2018
World Science Festival, City of Science Volunteer at BraiNY brain bank table	Lehman College, Bronx, NY March 11th, 2018
World Science Festival, City of Science Volunteer at BraiNY brain bank table	Park Slope Armory, Brooklyn, NY Dec 10th, 2017
World Science Festival Ultimate Science Night Volunteer at BraiNY station	Kimmel Center, New York University, NY June 4th, 2017
NYU Undergraduate Women in Science Initiative Meeting Volunteer panelist	New York, NY March 3rd, 2016
Biobus, Brain Awareness Week Volunteer at BraiNY station	Harlem, NYC March 12th, 2016
Brain Awareness Week, Family Night at New York Hall of Science Student volunteer	Queens, NY March 18th, 2016
World Science Festival, City of Science Volunteer at BraiNY station	Park Slope Armory, Brooklyn, NY October 16th, 2016

SKILLS

Experimental	Design, data collection, and analysis of psychophysical studies of vision and attention Eye movement recording (Eyelink 1000, ISCAN) and analysis SPSS statistics software Figure editing using Inkscape
Programming	Matlab: experimental programming (MGL toolbox), data analysis, figure creation R: experimental programming GitHub: uploading, revising, and sharing code Command-line operation in UNIX Terminal Basics of HTML for personal website maintenance
Neuroimaging	Certified MRI User Experimental design of fMRI studies Data analysis (FSL, Freesurfer, Matlab) Anatomical segmentation of ¹⁸ F-FDG-PET scans (ROVER software)
TMS	Certified Transcranial Magnetic Stimulation (TMS) Operator Magstim Rapid2 Plus1 stimulator (3.5T), 70mm figure-of-eight coil Brainsight Neuronavigation system (Rogue Research) FASTSCAN digital laser scanner Experimental design of TMS studies, phosphene thresholding, data collection
Administrative	Writing and successful submission of IRB protocols Custodian of lab petty cash Grant submissions (NIH, NSF) Maintenance of Endnote reference library Creation and maintenance of lab website and internal wiki Proficient in Word, Pages, Excel, Numbers, PowerPoint, Keynote
Communication	Comfort with public speaking and performing in front of large crowds Active member of Grace Church Choral Society in NYC (2017-present) Soloist in co-ed collegiate a cappella group, "The Penny Loafers" (4 yrs) HS Jazz Choir (3 yrs) and ensemble member in 3 musicals 1st chair tenor saxophone player in Pittsford Sutherland HS Wind Ensemble (4 yrs) and Jazz Ensemble (4 yrs) Private voice lessons and recitals at Eastman School of Music, Rochester, NY
Leadership	Lead co-organizer of Masters' Research Conference in Spring of 2017 and 2018 Business Manager of co-ed collegiate a cappella group +4 years customer service experience in restaurant and catering industry High School Student Council Class Secretary from 2006-2008