J. Patrick Mayo, PhD

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Education

2011	Ph.D. in Neuroscience, University of Pittsburgh
2001	B.A. in Cognitive Science and English, Vassar College

Employment

Present Position

2020-	Assistant Professor, Dept. of Ophthalmology, University of Pittsburgh

Past Positions

2015-2020	Research Associate, Laboratory of Stephen Lisberger at Duke University
2011-2015	Postdoctoral Researcher, Laboratory of John Maunsell at Harvard Med. School
2012-2015	Instructor, Dept. of Molecular and Cellular Biology, Harvard University
2005-2011	Graduate Student, Laboratory of Marc Sommer at University of Pittsburgh
2003-2005	Research Technician 2, Laboratory of James Houk at Northwestern University
2002-2003	Research Technician, Laboratory of James DiCarlo at MIT

Honors and Grant Support

2019	Program Committee, Gordon Research Seminar on Eye Movements
2019	National Eye Institute Postdoctoral Travel Grant, Vision Sciences Society
2018	Chair and Speaker, Society for Neuroscience minisymposium, *The Dynamic Interaction of Vision and Eye Movements*
2018	Society for Neuroscience Trainee Professional Development Award
2017	Program Committee, Gordon Research Seminar on Eye Movements
2015	Discussion Leader, Gordon Research Seminar on Eye Movements
2012-2015	NIH F32 EY022529 (NEI), Kirschstein National Research Service Award
2012, 2015	Certificate of Distinction in Teaching, Harvard University Bok Center
2013	Gordon Research Seminar on Eye Movements Trainee Fellowship
2010	Elsevier/Vision Research Vision Sciences Society Student Travel Award
2008-2009	Andrew Mellon Predoctoral Fellowship, University of Pittsburgh

Publications

Research articles

Guidera, JA, Taylor, NE, Lee, JT, Vlasov, KY, Pei, J, Stephen, EP, **Mayo, JP**, Brown, EN, and Solt, K. Sevoflurane induces coherent slow-delta oscillations in rats. Front Sys Neurosci 11 (36), 2017.

Mayo, JP and Maunsell, JHR. Graded neuronal modulations related to visual spatial attention. J Neurosci 36 (19), 2016.

Mayo, JP, Morrison, RM, Smith, MA. A Probabilistic Approach to Receptive Field Mapping in the Frontal Eye Fields. Front Sys Neurosci 10 (25), 2016.

Mayo, JP, Cohen, MR, and Maunsell, JHR. A Refined Neuronal Population Measure of Visual Attention. PLoS One 10 (8), 2015.

Mayo, JP, DiTomasso AR, Sommer MA, Smith MA. Dynamics of visual receptive fields in the macaque frontal eye field. J Neurophys 114 (6), 2015.

Mayo, JP and Sommer, MA. Neuronal correlates of visual event timing at brief timescales. Proc Natl Acad Sci 110 (4), 2013.

Botvinick, MM, Wang, J, Cowan, E, Roy, S, Bastianen, C, **Mayo, JP**, and Houk, JC. An analysis of immediate serial recall performance in a macaque. Anim Cogn 12 (5), 2009.

Mayo, JP and Sommer, MA. Neuronal adaptation caused by sequential visual stimulation in the frontal eye field. J Neurophys 100 (4), 2008.

Book chapters, reviews, and commentaries

Mayo, JP and Smith, MA**.** Neuronal adaptation: tired neurons or wired networks? Trends Neurosci, 40 (3), 2017.

Rao, HM, **Mayo, JP** and Sommer, MA. Circuits for Presaccadic Visual Remapping. J Neurophys 116 (6), 2016.

Mayo, JP and Verhoef, BE. Feature-Specific Clusters of Neurons and Decision Related Neuronal Activity. J Neurosci 34 (25), 2014.

Mayo, JP and Sommer, MA. Shifting attention to neurons. Trends Cog Sci 14 (9), 2010.

Mayo, JP. Inactivation and adaptation of number neurons. Behav and Brain Sci 32 (3-4), 2009.

Mayo, JP. Intrathalamic mechanisms of visual attention. J Neurophys 101 (3), 2009.

Shin, SY, Crapse, TB, **Mayo, JP** and Sommer, MA. Visuomotor integration. Chapter in Encyclopedia of Neuroscience, eds. Binder, Hirokawa, and Windhorst. Springer; 2009.

Mayo, JP and Sommer, MA. Neuronal adaptation: Delay compensation at the level of single neurons? Behav and Brain Sci 31(2), 2008.

Mayo, JP. Two's a crowd: suppressed V4 visual responses to sequential stimuli. J Neurosci 27 (4), 2007.

Abstracts

Mayo, JP and Lisberger, SG. Cortical contributions to the latency of smooth pursuit eye movements determined by simultaneous recordings in area MT and the frontal eye fields. Society for Neuroscience conference, 062.15, Chicago, IL, 2019.

Mayo, JP and Lisberger, SG. The relative contributions of area MT and the frontal eye fields to the latency of smooth pursuit. Society for Neuroscience conference, 398.05, San Diego, CA, 2018.

Mayo, JP and Lisberger, SG. The relative contributions of area MT and the frontal eye fields to the latency of smooth pursuit. Vision Sciences Society conference, St. Pete Beach, FL; 2018.

Mayo, JP and Lisberger, SG. Correlated behavioral and neuronal response times in the cortical pursuit circuit. Gordon Research Conference: Eye Movements. Bates College, Lewiston, ME, 2017.

Mayo, JP and Maunsell, JHR. Graded population activity in area V4 during cued and uncued spatial attention. Society for Neuroscience conference, 793.11, Chicago, IL, 2015.

Mayo, JP and Maunsell, JHR. Trial-by-trial estimates of attention-related changes in V4 neuronal activity and fixational eye movements. Gordon Research Conference: Eye Movements. Bentley University, Waltham, MA, 2015.

Mayo, JP, Gozel, O, and Maunsell, JHR. Predictive power of area V4 local field potentials in determining the state of attention. Society for Neuroscience conference, 261.08, San Diego, CA; 2013.

Smith, MA, DiTomasso, AR, and **Mayo, JP**. Probabilistic maps of peri-saccadic receptive fields in the frontal eye fields. Society for Neuroscience conference, 826.21, San Diego, CA; 2013.

Mayo, JP, DiTomasso, AR, and Smith, MA. Measuring frontal eye field receptive fields in space and time. Gordon Research Seminar: Eye Movements. Stonehill College, Easton MA, 2013.

Mayo, JP, DiTomasso, AR, and Smith, MA. Temporal dynamics of receptive fields in the frontal eye fields. Society for Neuroscience conference, 78.03, New Orleans, LA; 2012.

Smith, MA, DiTomasso, AR, Sommer, MA, and **Mayo, JP**. Measuring the spatial and temporal dynamics of frontal eye field receptive fields. ARVO conference, FL; Session 514, #5724, 2012.

Mayo, JP, DiTomasso, AR, Sommer, MA, and Smith, MA. An improved method for mapping neuronal receptive fields in prefrontal cortex. Vision Sciences Society conference, Naples, FL; 2012.

Mayo, JP, DiTomasso, AR, Sommer, MA, and Smith, MA. Conventional versus spike-triggered averaging measurements of frontal eye field receptive fields. Society for Neuroscience conference, 914.08, Washington, DC; 2011.

Mayo, JP and Sommer, MA. Encoding of brief time interval judgments in single oculomotor neurons. Vision Sciences Society conference, Naples, FL; 2010.

Cowan, E, Botvinick, MM, Wang, J, Roy, S, Bastianen, C, **Mayo, JP** and Houk, JC. An analysis of immediate serial recall performance in a macaque. Society for Neuroscience conference, 98.11, Chicago, IL; 2009.

Mayo, JP and Sommer, MA. Monkey and human performance in a chronostasis task suitable for neurophysiology. Vision Sciences Society conference, Naples, FL; 2009.

Mayo, JP and Sommer, MA. Do monkeys experience saccade-induced time illusions? Society for Neuroscience conference, 877.26, Washington, DC; 2008.

Mayo, JP and Sommer, MA. Saccade-modulated forward masking of visual responses in the frontal eye field and superior colliculus. Society for Neuroscience conference, 439.14, Atlanta, GA; 2006.

Mayo, JP and Sommer, MA. Impact of saccade initiation on visual and temporal responses in the frontal eye field. Neural Control of Movement conference, Key Biscayne, FL; 2006.

Ad Hoc Reviewer

Current Biology, Cortex, Journal of Neuroscience, PLoS Computational Biology, Frontiers in Computational Neuroscience, Frontiers in Systems Neuroscience, Experimental Brain Research, European Journal of Neuroscience, PLoS One

Other Training

2009	Structure, Function, and Dev. of the Visual System, Cold Spring Harbor
2008	Visual Neuroscience European Summer School, Hessia, Germany

Teaching

2019	Duke University, Guest Lecturer, *Neural Engineering* with Dr. Marc Sommer
2018	Duke University, Guest Lecturer, *Neuronal Control of Movement* with Dr. Marc Sommer
2012-2015	Harvard University, Instructor, Junior Neurobiology seminar
2012-2015	Harvard University, Instructor, *Short-Course on Measuring Brain Activity*
2013	Harvard University, Guest Lecturer, *Neural Basis of Visual Perception* with Dr. David Hubel
2012	Harvard University, Teaching Assistant, *Quantitative Methods in Biomedical Research* with Drs. Richard Born and Michael Springer
2007	Univ. of Pittsburgh, Teaching Assistant and Guest Lecturer, *Introduction to Neuroscience with* Dr. Edward Stricker

Service Activities

2018	Judge, North Carolina Science and Engineering Fair, Region 3b
2008-2010	Cerebellum Journal Club Coordinator, Center for the Neural Basis of Cognition (CNBC)
2008-2009	Center for Neuroscience at the University of Pittsburgh (CNUP) Departmental Retreat Committee Student Representative
2007-2008	CNUP Admissions Committee Student Representative
2006-2008	CNBC Colloquium Series Coordinator
2006-2008	CNBC Alumni Speaker Series Coordinator
2006-2007	Department of Neuroscience Graduate Student Organization, President