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Curriculum Vitae

Lewis A. Wheaton

Associate Professor
School of Biological Sciences
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Adjunct Associate Professor
Department of Rehabilitation Medicine
Emory University School of Medicine
1441 Clifton Road N.E.
Atlanta, GA 30322

Research interests

- Neurophysiology related to planning and executing complex, cognitive motor tasks
- Higher-order motor disorders, ideomotor apraxia and related apraxias
- Mechanisms of skilled motor control recovery in amputation and CNS injury

Education

Post-Doctoral	Baltimore Veterans Affairs Medical Center	2005-2008
Doctoral	Neuroscience and Cognitive Science University of Maryland, College Park & Human Motor Control Section NINDS, NIH	2000-2005
Undergraduate	B.S. Biology, Radford University	1995-1999

Professional Employment

Associate Professor	Georgia Institute of Technology School of Biological Sciences	2016 - present
Associate Professor	Georgia Institute of Technology School of Applied Physiology	2014 - 2016
Assistant Professor	Georgia Institute of Technology School of Applied Physiology	2008 - 2014
Member	Children's Ctr. for Neurosciences Research Emory Children's Pediatric Research Ctr.	2011-present
Adjunct Asst. Professor	Rehabilitation Medicine Emory University School of Medicine	2011-present
Post-Doctoral Fellow	Baltimore Veterans Affairs Hospital	2005-2008
Research Fellow	NINDS, NIH	2001-2005

Dissertation

- Role of Human Parietal and Premotor Cortical Areas in Complex Hand Movements, 2005

Funding

Active Research Grants

National Institutes of Health PI: \$32,000 2014-2015
(NINDS) Clinical Research Loan
Repayment Program - Renewal

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US Department of Veterans Affairs, Career Development Award (CDA-2) <i>-Neural mechanisms of visual processing for action knowledge in aging</i>	Co-I: \$607,355	2012-2017
Templeton Foundation <i>- Homo faber: the Language of Technology</i>	Co-PI: \$50,206 (1.5 mo effort)	2014-2016
National Science Foundation <i>- IBBS: The Interrelated Development of Language and Technology</i>	Co-PI: \$349,352 (.7 mo effort)	2014-2017
Center for Advanced Brain Imaging <i>-Understanding the interaction of action semantics and internal models through motor control in human augmentation</i>	PI: \$15,000	2016-2017

Completed Research Grants

- Recognizing human gestures by context: seeing the difference, Georgia Tech/Georgia State University Center for Advanced Brain Imaging Seed Grant, \$10,500, 2011-2012
Role: PI
- Noninvasive assessment of attention state from correlated oscillations in brain and muscle, Army Research Office, \$50,000, 2010-2011
Role: Co-I
- Pantomiming and Tool-Use; a neuroimaging study, Georgia Tech/Georgia State University Center for Advanced Brain Imaging Seed Grant, \$10,000, 2009-2010
Role: PI
- Veterans Affairs Research Enhancement Award Program Pilot Grant, “Selective Activation in the Stroke-Injured Brain by Manipulation of Task Complexity”, \$20,000
Role: PI
- Veterans Affairs Pre-doctoral Dissertation Research Fellowship, “Stroke-Injured Cortical Activity and Adaptation in Lower Extremity Movement”, 2006-2008
Role: Co-PI
- Sensory Feedback in Movement Training of the Lower Extremity (#A6063W), Department of Veterans Affairs Advanced Career Development Award (CDA-2), \$225,000, 2008
Role: PI
- Exercise-induced Alteration in Brain Activity During Motor Performance Under Cognitive Stress, Army Research Office, \$50,000 (5% salary effort) 2012-2013
Role: Co-I

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- -EFRI-M3C: Mobility Skill Acquisition and Learning through Alternative and Multimodal Perception for Visually Impaired People, National Science Foundation, \$2,104,671 (5% effort), 2011-2013
Role: Collaborator

Completed Conference Grants

- “First International Conference of Ideomotor Apraxia”; 2004 – Office of Rare Diseases, National Institutes of Health
Intramural Conference Grant
Role: Co-PI
- “First International Conference of Ideomotor Apraxia”; 2004 – Movement Disorders Society Conference Grant
Role: Co-PI
- “Meeting of the Workgroup on Ideomotor Apraxia”; 2005 – Office of Rare Diseases, National Institutes of Health
Intramural Conference Grant
Role: Co-PI
- “Meeting of the Workgroup on Ideomotor Apraxia”; 2005 – National Institute of Neurological Disorders and Stroke, National Institutes of Health Intramural Conference Grant
Role: Co-PI
- Neural Correlates of Object Recognition and Action Workshop; 2009 – National Science Foundation
Role: PI

Awards

- Cullen-Peck Fellow, 2016, Georgia Tech College of Sciences

Professional Activities

Societies

- Society for Neuroscience, 2000-present
- Society for the Neural Control of Movement, 2005-present
- Movement Disorders Society, 2005-2015
- National Rehabilitation Association, 2009-present
- American Society for Neurorehabilitation, 2005-present
-Member, Program Committee, 2016-present

Conference Organization

- Co-Director, First International Conference of Ideomotor Apraxia, Rockville, MD; September 20-22, 2004
- Co-Director, Workshop on Ideomotor Apraxia, Washington DC; October 31-November 2, 2005
- Director, Neural Correlates of Object Recognition and Action Workshop, Atlanta, GA; September 28-30, 2009
- Program Committee Member, IEEE/NSF Workshop on Multimodal and Alternative Perception for Visually Impaired People, San Jose, CA, July 15-19, 2013

Teaching

School of Applied Physiology, Georgia Institute of Technology

-Directed Courses

- APPH 6237 Fundamentals of Human Neuroimaging
-Spring, Fall 2010, Fall 2011, Spring 2014, 2015, 2016
- APPH 6239 Movement Disorders
-Spring 2011, 2012, 2013, 2015
- APPH 4400/6400 Human Neuroanatomy
-Fall 2012, 2013, 2014, 2015, 2016
- APPH 4400/6600 History of Neuroscience
-Fall 2014, Spring 2015, Fall 2015, 2016

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- James Broadway, Jr. Predoctoral Advisory Committee Member 2010-2012
- Savannah Cookson Qualifying Exam Committee member 2014
- Derek Smith Qualifying Exam Committee member 2016

School of Electrical and Computer Engineering, Georgia Tech

- Ashley Johnson Predoctoral Advisory Committee Member 2009-2012

Mentoring

Post-doctoral

- Mackenzie Carpenter, M.D., 2006-2008
-Presently, *Clinical Assistant Professor, Neurology, Johns Hopkins Hospital*
- J.C. Mizelle, Ph.D., 2008-2010
-Presently, *Assistant Professor, East Carolina University*

- Anna Berry, DPT, 2008-2010
-Presently *in Private Practice*

Graduate Students

- Nikhilesh Natraj , Doctoral student (Applied Physiology), 2009-2015
-Presently, *Post-doctoral Fellow, University of California, San Francisco*
- William Cusack, Doctoral student (Applied Physiology), 2009-2014
-Presently, *Principal Scientist, Abbott*
- Rachel Kelly, Doctoral student (Applied Physiology), 2009-2015
-Presently, *Human Factors Scientist, Exponent*
- Namrita O’Dea, Doctoral student (Applied Physiology), 2011-2015
- Irrum Niazi, Doctoral student (Applied Physiology), 2011-15
- James Broadway, Doctoral Student (Psychology), 2011-2014
- Ashley Johnson, Doctoral Student (Electrical and Computer Engineering), 2008-2012
- Victoria Poole, Doctoral Student (Biomedical Engineering, Perdue), 2008-2010
- Nikta Pirouz, MS (Prosthetics and Orthotics) Student, 2008-2010
- Sheryl Nathanson, MS (Prosthetics and Orthotics) Student, 2010-2011
- Mike Cope, MS (Prosthetics and Orthotics) Student, 2010-2011
- Scott Thach, MS (Prosthetics and Orthotics) Student, 2011-2013
- Rebecca Patterson, MS (Prosthetics and Orthotics) Student, 2011-2013
- Delisa Adams, MS (Prosthetics and Orthotics) Student, 2012-2014
Best Capstone Project Award, 2014
- Dylan Lee, Doctoral student (Applied Physiology), 2012-2014
- Laura Hughey, MS (Prosthetics and Orthotics) Student, 2013-2015
Best Capstone Project Award, 2015
- Laura Williams, MS (Prosthetics and Orthotics) Student, 2013-2015
- Regan Lawson, Doctoral student (Applied Physiology), 2014-present
- Beth Petrunich, MS (Prosthetics and Orthotics) Student, 2015-2016
Tied for Best Capstone Project, 2016
- Malone Gasler, MS (Prosthetics and Orthotics) Student, 2015-2016
Tied for Best Capstone Project, 2016
- John Johnson, Doctoral student (Applied Physiology), 2014-present
- Kristel Bayani, Doctoral student (Applied Physiology), 2014-present
- Lauren Levinson, MS (Prosthetics and Orthotics) Student, 2016-present
- Sarah Mosley, MS (Prosthetics and Orthotics) Student, 2016-present
- Shou Wang, MS (Prosthetics and Orthotics) Student, 2017-present
- James Kling MS (Prosthetics and Orthotics) Student, 2017-present

Undergraduate Students

- Jason Earnest - *Presidential Undergraduate Research Award (PURA)* Trainee, 2009
- Teresa Tang, Biology (Wake Forest University), *BRAIN Award* Trainee, 2009

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- Yvonne Pella, Biomedical Engineering, 2011-2014
- Bianca Whitten, Business Management, 2010-2011
- Rhett Morrisette, Biomedical Engineering, 2010-2012
- Briana Shay, Biomedical Engineering, 2011-2012
- Alexis Oparah, Neuroscience (Duke University), BRAIN Award Trainee, 2011
- Jackie Gilberto, Biology/Psychology, 2011-2012
- Gabriella Spinola-Khazami, Biomedical Engineering, 2012
- Rachel Isaac, Biomedical Engineering, 2012
- Fredrik Kamps, Macalaster College, BRAIN Award Trainee, 2012
- Daniel DeWitz, Viterbo University, BRAIN Award Trainee, 2012
- Sarah Mosely, Biology, 2012-2015
- Kelly Neary, Biomedical Engineering, 2012-2015
Presidential Undergraduate Research Award (PURA) Trainee
- Lauren Levinson, Biology, 2012-2014
- Sumia Basunia, Biology, 2014-2016
Presidential Undergraduate Research Award (PURA) Trainee, 2014
Best Presentation Award at the UROP Spring Symposium, travel award recipient, 2015
Presidential Undergraduate Travel Award, 2015
- Shalini Pandya, Biology, 2014-2015
- Bennett Alterman, Biology, 2014-2015
Presidential Undergraduate Research Award (PURA) Trainee
- Da Hee Lee, Biology, 2014-2015
- Marissa D'Souza, Computing, 2014-2016
- Annie Swanson, Biology, 2015-2016
- Madison Kukura, 2015-present
- Meghan Dietrich, 2015-present
- Tatyana Medina, 2015-present
First Place Student Poster, 2017 STEM Innovators Conference
- Neel Atawala, 2016-present
- Ifrah Walis, 2017-present

Community Service

- Coordinator – Neuroscience Scholars Program, Patrick Henry High School, Roanoke, VA
- Nickajack Elementary School Council, Smyrna, GA

Government Service

- Member, State Rehabilitation Council, Georgia Vocational Rehabilitation Agency (GVRA), 2013-present

Academic Service

- Member, Georgia Tech Strategic Planning Steering Committee, 2009-2010
- Member, Center for Behavioral Neuroscience, Undergraduate Education Committee, 2009 - present
- Member, Data Safety Monitoring Board, Neural Systems, Inc., 2009-present
- Member, Center for Advanced Brain Imaging Operations Committee, 2009-present
- Member, Center for Advanced Brain Imaging Director Search Committee, 2011-present
- Member, Dean's College of Sciences School of Applied Physiology Chair Reappointment Committee, 2012
- Judge, 2012 Georgia Tech Graduate Technical Symposium ([GT²])
- Member, Student Activities Committee, Georgia Tech, 2013-present
-Chair, 2015-16
- Member, NeuroX Task Force, Georgia Tech, 2013-present
-Educational Opportunities subgroup member
- Member, CoS Neuroscience Major Curriculum Committee, Georgia Tech, 2014-2015
- Member, Neuroscience Undergraduate Curriculum Committee, Georgia Tech, 2014-2015
- Co-PI, Race and Racism in Contemporary Biomedicine Working Group (funded through GT-FIRE), 2014-present
- Member, Technology Fee Advisory Committee, 2016-2017
- Chair, College of Science Neuroscience Faculty Search Committee, 2016-2017

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- Member, College of Science Neuroscience Academic Professional Search Committee, 2017

Book Chapters

- **Wheaton, L.A.** Neuroplasticity in apraxia rehabilitation. In: Tracy J., Hampstead B., Sathian, K. (eds.) *"Plasticity of Cognition in Neurologic Disorders"*. Oxford University Press, 2014

Published Manuscripts

Peer Reviewed Research Articles

- Nolte, G., Bai, O., **Wheaton, L.**, Mari, Z., Vorbach, S., & Hallett, M. Identifying true brain interaction from EEG data using the imaginary part of coherency. *Clin Neurophysiol* 2004; 115: 2292-307.
- **Wheaton, L.A.**, Shibasaki, H, & Hallett, M. Temporal activation of parietal and premotor areas related to praxis hand movements. *Clin Neurophysiol* 2005; 116: 1201-1212.
- **Wheaton, L.A.**, Nolte, G., Bohlhalter, S., Fridman, E., & Hallett, M. Synchronization of parietal and premotor areas during the preparation and execution of praxis hand movements. *Clin Neurophysiol* 2005; 116: 1382-1390.
- **Wheaton, L.A.**, Yakota, S. & Hallett, M. Posterior parietal negativity preceding self-paced praxis movements. *Exp Brain Res* 2005; 163: 535-539.
- Fridman, E., Immisch, I., Hanakawa, T., Bohlhalter, S., Waldvogel, D., Kansaku, K., **Wheaton, L.**, Wu, T., & Hallett, M. Functional specialization of the dorsal stream for gesture production. *NeuroImage* 2006; 29: 417-428.
- **Wheaton, L.A.**, Mizelle, C., Forrester, L., Bai, O., Shibasaki, H. & Macko R.F. How does the brain respond to unimodal and bimodal sensory demand in movement of the lower extremity? *Exp Brain Res* 2007; 180: 345-354.
- **Wheaton L.A.**, Carpenter, M., Mizelle, J.C. & Forrester, L. Preparatory band specific premotor cortical activity differentiates upper and lower extremity movement. *Exp Brain Res*; 2008; 184: 121-126.
- **Wheaton, L.A.**, Bohlhalter, S., Nolte, G., Shibasaki, H., Hattori, N., Fridman, E., Vorbach, S., Grafman, J. & Hallett, M. Cortico-cortical networks in patients with ideomotor apraxia as revealed by EEG coherence analysis. *Neurosci Lett*; 2008: 87-92.
- Bohlhalter, S., Hattori, N., **Wheaton, L.A.**, Fridman, E., Shamim, E.A., Garraux, G., and Hallett, M. Gesture-subtype dependent left lateralization of praxis planning: an event-related functional fMRI study. *Cerebral Cortex*; 2009; 19: 1256-62.
- **Wheaton, L.A.**, Villagra, F., Hanley, D.F., Macko, RF and Forrester L.W. Reliability of TMS motor evoked potentials in quadriceps of subjects with chronic hemiparesis after stroke. *J Neurol Sci*; 2009; 276: 115-117.
- Hattori, N., Shibasaki, H., **Wheaton, L.A.**, Wu, T., Matsushashi, M., & Hallett, M. Discrete parieto-frontal connectivity related to grasping objects. *J Neurophysiol*; 2009; 101: 1267-82.
- **Wheaton, L.A.**, Bohlhalter, S, Fridman, E., Vorbach, S., & Hallett, M. Left parietal cortex activation related to planning, executing, and suppressing praxis hand movements. *Clin Neurophysiol*; 2009; 120: 980–986.
- Fridman, E., Crespo, M., Gomez Arguello, S, Villarreal, M, Bohlhalter, S., **Wheaton, L.** & Hallett, M. Kinematic improvement following Botulinum Toxin-A injection in upper limb spasticity due to stroke. *J Neurol Neurosurg Psychiatry* 2010; 81: 423-427.
- Mizelle, J.C., Hallett, M., Forrester, L & **Wheaton, L.A.** Electroencephalographic reactivity to unimodal and bimodal visual and proprioceptive demands in sensorimotor integration. *Exp Brain Res*; 2010; 203(4): 659-70.
- Mizelle, J.C., Hallett, M., Forrester, L & **Wheaton, L.A.** Theta frequency band activity and attentional mechanisms in visual and proprioceptive demand. *Exp Brain Res*; 2010; 204(2): 189-97.

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- Mizelle, J.C. & **Wheaton, L.A.** Neural Activation for Conceptual Identification of Correct Versus Incorrect Tool-Object Pairs. *Brain Research*; 2010; 1354: 100-112.
- Johnson, A; **Wheaton, L.A.**, Shinohara, M. Attenuation of Corticomuscular Coherence with Additional Motor or Non-motor Task. *Clin Neurophysiol*; 2011; 122: 356-63.
- Mizelle, J.C. & **Wheaton, L.A.** Testing perceptual limits of functional units: are there "automatic" tendencies to associate tools and objects? *Neurosci Lett*; 2011; 488: 92-96.
- Mizelle, J.C. & **Wheaton, L.A.** Why is that hammer in my coffee: A multimodal imaging investigation of contextually-based tool understanding. *Front. Hum. Neurosci*; 2011; **4**:233. doi: 10.3389/fnhum.2010.00233
- Mizelle, J.C., Tang, T., Pirouz, N. & **Wheaton, L.A.** Forming tool-use representations: a neurophysiological investigation into tool exposure. *Journal of Cognitive Neuroscience*, 2011; 23:10, pp. 2920–2934.
- Borghi, A.M., Flumini, A., Natraj, N., **Wheaton, L.A.** One hand two objects: emergence of affordance in context. *Brain and Cognition*; 2012; 10: 64-73.
- Cusack, W.F., Cope, M., Nathanson, S., Pirouz, N., Kistenberg, R., **Wheaton, L.A.** Neural activation differences in amputees during imitation of intact versus amputee movements. *Frontiers in Human Neuroscience*, 2012; 6: 182. doi: 10.3389/fnhum.2012.00182
- Natraj N., Poole V., Mizelle JC, Flumini A., Borghi A, **Wheaton L.A.** Context and Hand Posture Modulate the Neural Dynamics of Tool-Object Perception. *Neuropsychologia*, 2013, 51: 506-519.
- Mizelle J.C., Kelly R & **Wheaton L.A.** Ventral encoding of functional affordances: a neural pathway for identifying errors in action. *Brain and Cognition*, 2013, 82: 274–282.
- Inouchi M, Matsumoto R, Taki J, Kikuchi T, Mitsueda-ono T, Mikuni N, **Wheaton LA**, Hallett M, Kukuyama H, Shibasaki H, Takahashi R, Ikeda A. Role of posterior parietal cortex in reaching movements in humans: clinical implications for optic ataxia. *Clin Neurophysiol*, 2013, 124(11):2230-41.
- Kelly R & **Wheaton L.A** Differential mechanisms of action understanding in left and right handed subjects: the role of perspective and handedness. *Frontiers in Cognition*, 2013, 4:957. doi:10.3389/fpsyg.2013.00957
- Cusack W, Patterson R, Thach S, Kistenberg, RS, **Wheaton LA**. Motor performance benefits of matched limb imitation in prosthesis users. *Experimental Brain Research*, 2014, 232:2143-54.
- Scorolli C, Miatton M, **Wheaton LA**, Borghi A. I give you a cup, I get a cup: a kinematic study of social interaction. *Neuropsychologia*, 2014, 57: 196-204.
- Kumar N, **Wheaton LA**, Snow TK, Millard-Stafford M. Exercise and caffeine improve sustained attention following fatigue independent of fitness status. *Fatigue: Biomedicine, Health and Behavior*, 2015, 3: 104-121.
- Kelly R, Mizelle JC, **Wheaton LA**. Distinctive laterality of neural networks supporting action understanding in left- and right-handed individuals: an EEG coherence study. *Neuropsychologia*, 2015, 75:20-29. 10.1016/j.neuropsychologia.2015.05.016
- Natraj N, Pella YM, Borghi AM, **Wheaton LA**. Visual encoding of tool-object affordances. *Neuroscience*, 2015, 310: 512-527.
- Mizelle JC, Oparah A., **Wheaton LA**. Reliability of Visual and Somatosensory Feedback in Skilled Movement: the Role of the Cerebellum. *Brain Topography*, 2016, 29: 27-41.

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- Cusack W, Thatch S, Patterson D, Acker R, Kistenberg R, **Wheaton LA**. Enhanced neurobehavioral outcomes of action observation prosthesis training. *Neurorehabilitation and Neural Repair*, 2016, 30(6):573-82.
- Kumar N, **Wheaton LA**, Snow TK, Millard-Stafford M. Carbohydrate ingestion but not mouth rinse maintains sustained attention when fasted. *Physiology & Behavior*, 2016, 53: 33-39.
- Hughey, L & **Wheaton, LA**. Incidental learning and explicit recall in upper extremity prosthesis use: insights into functional rehabilitation challenges. *Journal of Motor Behavior*, 2016, Nov-Dec;48(6):519-526.
- Borich MR, **Wheaton LA**, Brodle SM, Lakani B, Boyd LA. Evaluation of interhemispheric effective connectivity in chronic stroke using TMS-EEG. *Neuroscience Letters*, 2016, 618:25-30.
- Lawson D, Cusack W, Lawson R, Hardy A, Kistenberg R, **Wheaton LA**. Influence of perspective of action observation training on residual limb control in naïve prosthesis usage. *Journal of Motor Behavior*, 2016, 48: 446-454.
- Williams L, Pirouz N, Mizelle JC, Cusack W, Kistenberg R, **Wheaton LA**. Remodeling of cortical activity for motor control following upper limb loss. *Clinical Neurophysiology*, 2016, 127: 3128-3134.2
- Lawson R, Nathaniel J, **Wheaton LA**. Novel behavioral indicator of explicit awareness reveals temporal course of frontoparietal neural network facilitation during motor learning. *PLoS One*, 2017 Apr 14;12(4):e0175176. doi: 10.1371/journal.pone.0175176

Peer Reviewed Review Articles

- **Wheaton, L.A.** Parietal representations for hand-object interactions. *J. Neurosci* 2007; 27: 969-970.
- **Wheaton, L.A.** and Hallett, M. Ideomotor apraxia: a review. *J Neurol Sci* 2007; 260: 1-10.
- Buxbaum LJ, Haaland KY, Hallett M, **Wheaton L**, Heilman KM, Rodriguez A, Gonzales-Rothi L. Treatment of limb apraxia: moving forward to improved action. *Am J Phys Med Rehabil* 2008; 87(2): 149-161.
- Forrester L.W., **Wheaton, L.A.**, Luft A. Exercise-mediated locomotor recovery and lower extremity neuroplasticity after stroke. *J Rehabil Res Dev* 2008; 45 (2): 205-220.
- Mizelle, J.C. & **Wheaton, L.A.** The Neuroscience of Storing and Molding Tool Action Concepts: how “plastic” is grounded cognition? *Front. Psychology* 2010; doi: 10.3389/fpsyg.2010.00195
- Mizelle, J.C. & **Wheaton, L.A.** How can we improve our understanding of skillful motor control and apraxia? Insights from theories of “affordances”. *Front Human Neuroscience* 2014; doi: 10.3389/fnhum.2014.00612
- **Wheaton, L.A.** Neurorehabilitation in upper limb amputation: understanding how neurophysiological changes can affect functional rehabilitation. *Journal of Neuroengineering and Rehabilitation* 2017; 14:41: 1-12.

Invited Talks

2003

- National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, Maryland
- University of Maryland, College Park, 2003

2004

- Physical Therapy and Rehabilitation Sciences, University of Maryland, Baltimore
- Psychology, University of Maryland, College Park
- Neuroscience and Cognitive Sciences, University of Maryland, College Park

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- Department of Neurology, Columbia University Medical Center, New York City, New York
- Department of Neurology, University of Maryland School of Medicine, Baltimore
- Kinesiology, University of Maryland, College Park
- First International Conference on Ideomotor Apraxia, Rockville, Maryland, 2004

2005

- NINDS Grand Rounds, National Institutes of Health, Bethesda, Maryland
- Georgetown University, Washington DC
- Department of Physical Therapy, University of Maryland, Baltimore

2006

- Department of Biological Sciences, Old Dominion University, Norfolk, Virginia
- University of Kansas Medical Center, Kansas City

2008

- Department of Physical Therapy, University of Maryland, Baltimore, Maryland
- Department of Kinesiology, Indiana University
- Department of Applied Physiology, Georgia Tech
- Neuroscience of Rehabilitation Seminar Series, University of Maryland School of Medicine
- 38th Annual Society for Neuroscience, Mini-symposium, Washington DC

2009

- CEU Series, Emory University School of Medicine
- Crawford Research Institute, Shepherd Center
- Neurology Grand Rounds, Emory University School of Medicine
- Department of Psychology, Georgia Institute of Technology
- Neural Correlates of Object Recognition and Action Workshop, Atlanta, Georgia

2010

- The Coca-Cola Company, Atlanta
- Atlanta Human Factors and Ergonomics Society Meeting, Atlanta
- Italian Society of Experimental Psychology, Bologna, Italy
- Integrative BioSystems Institute, Georgia Tech, Atlanta
- International Congress of Clinical Neurophysiology, Kobe, Japan

2011

- Department of Psychology, Morehouse College, Atlanta
- Shepherd Center, Atlanta
- School of Biomedical Engineering, Georgia Tech, Atlanta
- Spinal Cord Injury Research Program, Shepherd Center, Atlanta

2012

- Department of Psychology, Emory University
- Department of Rehabilitation Medicine, Emory University School of Medicine

2013

- Veterans Affairs Medical Center, Atlanta GA
- School of Applied Physiology, Georgia Tech, Atlanta

2014

- Department of Anesthesiology, Emory University School of Medicine
(symposium and expert roundtable on “Using the EEG to Link Neuronal Spiking to Human Behavior”)
- University of Georgia, Athens, GA
- Department of Psychology, Georgia Tech

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2015

- Neuroscience, Georgia State University

2016

- The University of North Carolina Health Care Trauma Conference
- Kinesiology, East Carolina University
- Workshop on "From Tools and Gestures to the Language-Ready Brain", Atlanta GA

2017

- Neural Control of Movement Symposium, Dublin, Ireland

Conference Oral Presentations

- “Neurophysiology of Pantomime”, First International Conference on Ideomotor Apraxia, Rockville, Maryland, 2004
- “Preparatory EEG Activity Related to Improved Performance in the Upper and Lower Extremities”, 38th Annual Society for Neuroscience Mini-symposium, 2008
- “Motor Learning and Motor Apraxias”, Neural Correlates of Object Recognition and Action Workshop, Atlanta, Georgia, 2009
- “Neural Activation for Identification of Correct Versus Incorrect Tool-Object Pairs”, Mizelle J.C. & **Wheaton L.A.** 39th Annual Meeting of the Society for Neuroscience, 2009
- “Una mano, due oggetti: emergere delle affordances nei contesti” (“One hand, two objects: emergence of affordances in context”), Flumini A., Natraj N., **Wheaton L.A.**, Borghi A. Italian Society of Experimental Psychology, 2010
- “Context and Hand Posture Modulate the Neural Dynamics of Tool-Object Perception.” Natraj N., Poole V., Mizelle JC, Flumini A., Borghi A, **Wheaton L.A.** 40th Annual Meeting of the Society for Neuroscience Nanosymposium, 2011
- “When a glass calls: the anatomy of a toast.” Scorolli, C, Miatton, M, **Wheaton, L.A.**, Borghi, A.M. 5th International Conference on Spatial Cognition (Rome, Italy), 2012
- “The human cognitive-motor action interface: integration of central and peripheral nervous systems for tool use.” **Wheaton, L.A.** 85th Annual meeting of the American Academy for Physical Anthropology, 2016
- “The Changing Face of HIV: toward an intersectional understanding of race and HIV in the south.” Pollock A, Creary M, Gibson R, Platt M, Sewell AA, Singh J, **Wheaton LA.** Politics of Health in the U.S. South, Vanderbilt University, 2016

Conference Poster Presentations

- **Wheaton, L.A.** & Hallett, M. Cortical mechanisms for the preparation and execution of praxis. *33rd Annual Society for Neuroscience Meeting*, New Orleans, Louisiana, 2003
- **Wheaton, L.A.** & Hallett, M. Location and lateralization of movement related activation during praxis. *Joint Meeting of the American Association for Electrodiagnostic Medicine/International Federation of Clinical Neurophysiology with the American Clinical Neurophysiology Society*, San Francisco, CA
-Published in *Muscle and Nerve*, 2003, 28: Supplement 12, S169

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- **Wheaton, L.A.**, Nolte, G. and Hallett, M. Functional networks relevant to preparation of praxis hand movements. *First Annual Graduate Student Research Symposium*, Bethesda, Maryland, 2003
- **Wheaton, L.A.**, Nolte, G. and Hallett, M. Functional parietofrontal networks in humans for praxis performance. *34th Annual Society for Neuroscience Meeting*, San Diego, CA, 2004
- **Wheaton, L.A.**, Sato, S., Hallett, M. Human epicortical recording of motor related areas involved in praxis hand movements. *Bioscience Day 2004*, College Park, Maryland
- Bohlhalter, S., Fridman, E., **Wheaton, L.A.**, Hattori, N., Grafman, J., and Hallett, M. Hemispheric lateralization of normal and impaired praxis movements: an event-related functional fMRI study. *9th International Congress of Parkinson's Disease and Movement Disorders*, New Orleans, LA
-Published in *Movement Disorders*, 2005, 20: Supplement 10, S39
- **Wheaton, L.A.**, Sato, S., Mari, Z., Hallett, M. Movement related activation of parietal and temporal cortices revealed by epicortical recordings in humans. *Neuroscience and Cognitive Science WinterFest 2005*, College Park, Maryland
- Bohlhalter, S., Fridman, E., **Wheaton, L.A.**, Hattori, N., Grafman, J., and Hallett, M. Hemispheric lateralization of normal and impaired praxis movements: an event-related functional fMRI study. *57th Annual Meeting of the American Academy of Neurology*, Miami, FL
-Published in *Neurology*, 2005, 64: 6, Supplement 1, A97
- Mari, Z., Matsushashi, M., **Wheaton, L.A.**, Sato, S., Hallett, M. Human motor cortical oscillatory activation patterns in ipsilateral versus contralateral self-paced movements: an ECOG study. *35th Annual Society for Neuroscience Meeting*, Washington, DC, 2005
- **Wheaton, L.A.**, Hattori, N., Hallett, M. EEG Coherence Analysis of Visuomotor Networks: Distinguishable paths in the brain for varying processing demands. *35th Annual Society for Neuroscience Meeting*, Washington, DC, 2005
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