Updated: 1/2025

Curriculum Vitae

Lewis A. Wheaton

Director, Center for Promoting Inclusion and Equity in the Sciences (C-PIES)
Georgia Tech College of Sciences
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Professor, School of Biological Sciences
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http://thecmclab.com
https://scholar.google.com/citations?user=LYURcGwAAAAJ&hl=en

RESEARCH

- Neuroplasticity involved in the use of engineered devices to restore function in neurorehabilitation
- Visuomotor behavior during perception and action
- Social and emotional factors that influence neurorehabilitation

EDUCATION

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

EMPLOYMENT

Georgia Tech

2023-present	Professor, School of Biological Sciences, Georgia Institute of Technology
2022-present	Director, Center for Promoting Equity and Inclusion in the Sciences, College of Sciences
2016 - 2023	Associate Professor (with tenure), School of Biological Sciences (formerly Applied Physiology), Georgia Institute of Technology
2008 - 2014	Assistant Professor, School of Applied Physiology, Georgia Institute of Technology

Courtesy appointments:

2011-present	Children's Center for Neurosciences Research, Emory Children's Pediatric Research Center
2011-present	Adjunct Professor, Rehabilitation Medicine, Emory University School of Medicine

Veterans Affairs Medical Center

2005-2008	Post-Doctoral Fellow, Baltimore Veterans Affairs Medical Center

National Institutes of Health (NIH)

2001-2005	Research Fellow, NINDS, NIH

AWARDS AND HONORS

2016-2017, Cullen-Peck Fellow, Georgia Tech College of Sciences
2021 Georgia Tech Diversity Champion Award
2023 Center for Teaching and Learning Recognition of Excellence in Teaching
2024 Center for Teaching and Learning Recognition of Excellence in Teaching

ADMINISTRATION

Academic (Internal)

Inaugural Director, Center for Promoting Inclusion and Equity in the Sciences, College of Sciences, Georgia Tech, 2022-present

I presently serve as the inaugural director of the College of Sciences Center for Promoting Inclusion and Equity in the Sciences (C-PIES). The mission of C-PIES is to recruit, support and retain a diverse population for all sectors of our community — staff, faculty, and students — and build an inclusive community that broadens access to science and mathematics and creates opportunities for advancement.

Achievements

- Lead fundraising through the College of Sciences Advisory Board, Alumni Relations, and Corporate Engagement on C-PIES-initiated programs for faculty, students, and staff — including representing the College of Sciences in development of a $40 million endowment for the Pathbreakers Fellows Program through the Georgia Tech Transforming Tomorrow campaign and cultivating a $100,000 gift from Google to support inclusive student success
- Developed an Inclusive Excellence in Teaching Fellows program to support faculty-led curriculum development projects
- Led fundraising efforts through the College of Sciences Advisory Board to create Student Transfer Enrichment Program (STEP) and Graduate Student Enrichment Program (GradSTEP) to support academic success for transfer students and graduate students, respectively, in the College of Sciences
- Developed a Research Experiences Award to support graduate and post-doctoral students in unique research opportunities not funded through other resources related to their research

Committee Chair and Founding Director, Neuroscience and Neurotechnology Doctoral Program, 2019-2024

Chaired a committee working with campus colleagues and Deans in the College of Science, College of Engineering, and College of Computing to create a new interdisciplinary PhD program.

Achievements

- Work with campus stakeholders to develop a proposal approved by campus administration, University System of Georgia, and the Southern Association of Colleges and Schools Commission on Colleges
- Collaborate with other universities within the University System of Georgia and local private universities in proposal development
- Worked with the Dean's Office in the College of Sciences to develop a budget and forecast personnel needs for the program's future

Co-Chair, Georgia Tech Neuroscience Strategic Planning (GTNeuro), 2021-2022

Working directly with the Office of the Executive Vice Provost for Research, I co-led a strategic planning focused on bringing together a diverse community of neuroscientists on the Georgia Tech campus to identify strategic teaching and research opportunities. This identified critical infrastructure, research, and teaching needs that are actively being pursued through a variety of institute approaches.

Achievements

- Identified crucial needs of the neuroscience community for common research and teaching themes, along with opportunities for strategic growth and development
- Lead discussions around infrastructure development for new construction for research and education in neuroscience
- Co-lead a successful Dana Foundation pre-proposal to enhance neuroscience outreach through the arts and society engagement

Scientific (External)

Executive Board, American Society for Neurorehabilitation, 2018-present

Program chair (2018-2020), Treasurer (2020-2022), Vice President (2022-2025)
Elected Incoming President (2025-2028)

Achievements

- Develop a new multi-year minority fellowship for post-docs through early-career faculty that focuses on leadership development
- Manage an annual operating budget of ~$540,000 with yearly increases in revenues
- Leading a new initiative to ensure sustainable funding for research efforts by ASNR through the creation of a new endowment leveraging ASNR's change in tax status
- Negotiate publishing contract with SAGE Publications and our society journal to increase annual revenues by ~10% and better position the society in the changing publishing landscape
- Lead 2 rounds of strategic planning activities to grow the society's impact and reach
- Implement strategic planning priorities centered around enhancing the multidisciplinary focus and engagement of ASNR
- Serve as a representative of ASNR to the Food and Drug Administration to develop partnerships for entrepreneurs through the Total Product Life Cycle Advisory Program (TAP)

National Advisory Board on Medical Rehabilitation Research (NABMRR), NIH, 2022-present

I was invited to serve on NABMRR to contribute to the ongoing efforts to expand the neurorehabilitation research portfolio of the National Institute for Child Health and Human Development (NICHD), especially opportunities to bring together collaborations with basic scientists and engineers.

Achievements

- Develop the strategic planning of neuroscience and rehabilitation research themes for the National Center for Medical Rehabilitation Research (NCMRR) 2026
- Develop new strategies for enhancing research training mechanisms in the NICHD portfolio, such as the re-establishment of the Rehabilitation Research Career Development program award (K12)
- Serve on the Working Group planning for the 2025 NIH NCMRR Rehabilitation Research Conference

Public Service

Elected Councilmember, Smyrna, GA Ward 7, 2019-2023

In 2019, I was elected to serve as a council member in the city of Smyrna, representing approximately 10,000 residents in Ward 7, with oversight of a $105 million city budget and ~480 full-time staff. I sought to provide a new vision for the city and focus on community development opportunities for the Ward.

Achievements

- Secured over $10 million in funds for Ward 7 community improvement, road improvements, and economic development, leveraging state, and federal funding resources and public-private partnerships
- Lead transformative community improvement ordinances
- Worked with state and federal legislators on strategic initiatives for residents
- Standing Committee Membership: Budget, Cultural Engagement, Transit (Chair)

State Rehabilitation Council (SRC), Georgia Vocational Rehabilitation Agency (GVRA), 2013-2019

Served as a statewide non-partisan appointee by Governor Nathan Deal to SRC Executive Board

Achievements

- Lead discussions in advocating for the needs of the GVRA to state legislators
- Co-led new policy development to support vocational services for in-home work training
- Manage the first-ever transition process of the SRC board to a new board in 2018-2019

LEADERSHIP TRAINING

-Fellowships

- Georgia Tech Office of the Provost Emerging Leaders Fellowship Program, 2017-2018
- Atlantic Coast Conference Academic Leaders Network Fellowship (ACC ALN), 2023-2024

-Additional leadership training

- Georgia Municipal Association Cities United, 2021, 2022, 2023
- University of Georgia Carl Vinson Institute of Government, 2021-2022
    - Leadership Development course, 2022
    - Economic Development course, 2022
    - Workforce Development course, 2021

COMMITTEE SERVICE

Academic Service

-School/College Level

- Member, Georgia Tech Strategic Planning Steering Committee, 2009-2010
- Member, Center for Advanced Brain Imaging Operations Committee, 2009-2020
- Member, Center for Advanced Brain Imaging Director Search Committee, 2011-2012
- Member, Dean's College of Sciences School of Applied Physiology Chair Reappointment Committee, 2012
- Member, CoS Neuroscience Major Curriculum Committee, Georgia Tech, 2013-2014
- Member, Neuroscience Undergraduate Curriculum Committee, Georgia Tech, 2014-2015
- Chair, College of Science Neuroscience Faculty Search Committee, 2016-2017
- Member, College of Science Neuroscience Academic Professional Search Committee, 2017
- Co-Director, Physiology Laboratory Experiences for Applied Science Education (PLEASE) Program, 2017-2018
- Member, Advisory Committee, School of Biological Sciences, 2019-present
- Co-Chair, Georgia Tech College of Sciences Equity and Inclusion Task Force, 2020-2021
- Member, School of Biological Sciences, New Hire Strategic Planning Committee, 2021-present
- Member, Search Committee for Associate Dean for Faculty Development in the College of Sciences, 2023
- Member, Search Committee for Director for Development in the College of Sciences, 2023
- Member, Search Committee for Director for Rising Tide, College of Sciences, 2023

-Institute Level

- Member, Student Activities Committee, Georgia Tech, 2013-2016
  -Chair, 2015-16
- Member, NeuroX/GTNeuro Task Force, Georgia Tech, 2013-2021
  -Educational Opportunities subgroup member, 2013-2014
- Judge, 2012 Georgia Tech Graduate Technical Symposium ([GT^2])
- Co-PI, Race and Racism in Contemporary Biomedicine Working Group (funded through the Office of the Provost), 2014-2021
- Member, Technology Fee Advisory Committee, 2016-2020
- Chair, College of Science and College of Engineering Neuroscience and Neurotechnology PhD Development Committee, 2018-present
- Member, CoS Dean Search Committee, 2018-2019
- Member, Faculty Council for Accreditation, 2018-present

•Member, College of Sciences Diversity Council, 2019-2021
•Member, Excel Program Advisory Board, 2019-2024
•Member, EBB2-3 Research Neighborhood Task Force, 2021-present
•Faculty Advisor, Accessible Prosthetics Initiative at Georgia Tech, 2021-present
•Member, Search Committee for GT Chief Research Operations Officer (CROO), 2022-2023
•Member, Georgia Tech Diversity Equity and Inclusion Council, 2022-2023
•Georgia Tech - University Center of Exemplary Mentoring Coordinating Committee, 2022-present
•Member, Advisory Board, Black Culture, Innovation & Technology Program, Student Engagement and Well Being, 2023-present
•Faculty Advisor, 2023-present, Doctors Without Borders, Georgia Tech Chapter
•Member, PhD in Neuroscience and Neurotechnology Director Search Committee, 2024

-External to Georgia Tech
•Member, Alumni Advisory Council, Artis College of Science and Technology, Radford University, 2005-present
•Member, Center for Behavioral Neuroscience, Undergraduate Education Committee, 2009 - 2018
•Member, Data Safety Monitoring Board, Neural Systems, Inc., 2009-2020
•Executive Board Member, American Society for Neurorehabilitation, 2018 - present
Program Chair, 2018-2021
Treasurer, 2021-2022
Vice President, 2022-present
•Member, American Society for Neurorehabilitation Strategic Planning Committee, 2018
•Member, American Society for Neurorehabilitation Mentorship program, 2020-present

National Advisory Boards
•Member, National Advisory Board on Medical Rehabilitation Research (NABMRR), NIH, 2022-present
•Member, Scientific Advisory Board, Robert Wood Johnson Foundation Health Policy Research Scholar Program 2022-2024
•Member, Children's Hospital of Philadelphia, Bridge to Faculty Scholars Advisory Council, 2023-present
•Member, Scientific Advisory Board, Moss Rehabilitation Research Institute, 2023-present
•Member, Advisory Board, University of Pittsburgh Medical Center Rehabilitation Medicine Scientist Training Program (RMSTP, 1R25HD098048-01) of the Association of Academic Physiatrists, 2019-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
• Program Chair, American Society for Neurorehabilitation Annual Meeting, 2019 - 2021

SOCIETY MEMBERSHIPS
• Society for Neuroscience, 2000-present
• Society for the Neural Control of Movement, 2005-2018
• Movement Disorders Society, 2005-2015
• American Society for Neurorehabilitation, 2005-present
    • Executive Board Member, 2019-present

- National Rehabilitation Association, 2009-2022
- Association of Academic Physiatrists, 2020-present
- American Public Health Association, 2020-present

TEACHING

School of Applied Physiology (APPH)/Biological Sciences, Georgia Institute of Technology

-Created & Directed Courses

• APPH 6237 Fundamentals of Human Neuroimaging
-Spring, Fall 2010, Fall 2011, Spring 2014, 2015, 2016, 2019, 2022

• APPH 6239 Movement Disorders
-Spring 2011, 2012, 2013, 2015, 2017

• APPH 4400/6400 Human Neuroanatomy
-Fall 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022; Spring 2024, 2025

-Co-Directed Courses

• APPH 4400/6600 History of Neuroscience
-Fall 2014, Spring 2015, Fall 2015, 2016, 2018, 2019, 2020

-Guest Lectured Courses

• APPH 8000 Seminar in Applied Physiology – Fall 2008 - 2015; *Review cognitive motor control issues*
• APPH 6212 Systems Physiology II – Spring 2009-2011; *Voluntary Motor Control*
• APPH 6216 Rehabilitation Research Seminar – Spring 2009-2011; *Rehabilitation of Cognitive Motor Control*
• APPH 6216 Rehabilitation Research Seminar – Fall 2009; *Neuroimaging methods overview*

Department of Rehabilitation Medicine, Emory University School of Medicine

- DPT 810 Adult Neurorehabilitation – 2009-2024; *Apraxia and Rehabilitation*
- DPT 805 Principles of Motor Learning - 2018-2024; *Motor learning and prosthetics*
- PHT 550B and C Clinical Research II and III – Summer 2009 – Spring 2011; Summer 2010 – Spring, 2012; Summer 2015 – Spring 2016; Summer 2020-Spring 2021 - *Research advisor to physical therapy graduate student team projects*

PATENTS

U.S. Patent No. 11,869,380, “Prosthesis Simulator Devices and Methods”
U.S. Patent Application No. 18/385,169, “Prosthesis Simulator Methods”

FUNDING

Active Grants

Title of Project: NRT-FW-HTF: NSF Traineeship in the Sustainable Development of Smart Medical Devices
Agency/Company: NSF
Total Dollar Amount: $3,000,000
Role: co-PI
Collaborators: W. Hong Yeo (PI), Hyun Joo Oh, Andres Garcìa (Co-PI)
Period of Contract: 9/1/2024-8/31/2029
Candidate’s Share: 100% to GT

Title of Project: Empowering Institutions to Develop DEIJA-Centered Systems for Teaching and Learning (Inclusive Excellence 3 Program)
Agency/Company: HHMI
Total Dollar Amount: $505,000
Role: Senior Co-Director
Collaborators: David Collard (PI), Carrie Shepler, Jennifer Leavey
Period of Contract: 11/01/2022 - 10/31/2028
Candidate's Share: 100% to GT

Title of Project: REU: Site: Human Neuroscience Research and Techniques at Georgia Tech and Georgia State
Agency/Company: NSF
Total Dollar Amount: $356,928
Role: Co-PI
Collaborators: Eric Schumacher (PI)
Period of Contract: 5/01/2021-4/31/2025
Candidate's Share: 100% to GT

Pending Grants

Title of Project: Improving motor outcomes with prostheses following upper limb loss
Agency/Company: NIH
Total Dollar Amount: $419,926
Role: PI
Collaborators: Veronica Rowe (GSU)
Period of Contract: 04/01/25-03/31/27
Candidate's Share: 80% to GT

Submitted Grants

Title of Project: Neurocognitive Dynamics in Voice Production: Investigating Neurobiomarkers in Voice Disorders
Agency/Company: NIH
Total Dollar Amount: $2,932,898
Role: PI (multi PI)
Collaborators: Amanda Gillespie (Emory)
Period of Contract: 07/01/2025-06/30/2030
Candidate's Share: 50% to GT

Title of Project: REU SITE: Atlanta Area Human Neuroscience Undergraduate Research Experience at Georgia Tech
Agency/Company: NSF
Total Dollar Amount: $465,485
Role: co-PI
Collaborators: Eric Schumacher (PI), Kai McCormack (Spelman, Investigator)
Period of Contract: 05/01/2025 - 04/30/2028
Candidate's Share: 80% to GT

Title of Project: Georgia Tech & Spelman BRAINsync: Bridging Research in Advancing Innovative Neuroscience
Agency/Company: NIH
Total Dollar Amount: $430,405
Role: PI
Collaborators: co-I Eric Schumacher (GT), Kai McCormack, Mark Lee (Spelman)
Period of Contract: 07/01/2025 - 06/30/2028
Candidate's Share:50% to GT

Title of Project: IUSE:EDU – Track 1 ESL Proposal: The Open Course Project: development and assessment of open courses for student enrollment guidance
Agency/Company: NSF
Total Dollar Amount: $400,000
Role: PI
Collaborators: co-I Carrie Shepler, Lea Marzo, Michael Evans, Stephanie Reikes (GT)
Period of Contract: 06/01/2025-05/30/2028
Candidate's Share: 100% to GT

Completed Research Grants

•Collaborative Approaches to Research Engagement: Building and Validating a Community-Centered Realist Approach to Human Subjects Recruitment - development and pilot study, Georgia Tech Sustainability Next, $78,000, 2023-2024
Role-PI

•Georgia Tech Center for Neuroscience and Society, Dana Foundation, $194,525, 2022-2023
Role: Co-I

•Understanding the mechanisms of action observation as a rehabilitation intervention for stroke, Lewis Center Pilot Grant, $25,000, 2021-2022
Role: co-PI

•Neurobehavioral of inter-limb transfer in upper limb amputees, NIH (1R03 NS103006-01), $136,628, 2019-2021
Role: PI

•Action semantics and internal models through motor control in human augmentation, Center for Advanced Brain Imaging $15,000 2017 – 2019
Role: PI

•Physiology Laboratory Experiences for Applied Science Education (PLEASE), US Department of Education, $57,800, 2017-2018
Role: Co-Director

•IBBS: The Interrelated Development of Language and Technology, NSF, (1328567), $349,352, 2014-2018
Role: Co-PI

•*Homo faber*: the language of technology, Templeton Foundation, $50,206, 2014-2016
Role: co-PI

- Neural mechanisms of visual processing for action knowledge in aging, US Dept of Veterans Affairs, $607,355, 2012-2017
Role: co-PI

• 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

• 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

<u>Completed Conference Grants</u>
• "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

REVIEWING ACTIVITIES

Reviewing Activities for Scientific Publications

• Clinical Focus Journals (Neurology, Neuropsychology, Clinical Neurorehabilitation)
Clinical Neurophysiology; Journal of the International Neuropsychological Society; Cortex; Cognitive Neuropsychology; Journal of Clinical and Experimental Neuropsychology; Brain; Cerebral Cortex; Journal of Neurology, Neurosurgery, and Psychiatry; NeuroImage Clinical, Neurorehabilitation and Neural Repair

• Neuroscience Focus Journals
Experimental Brain Research; Neuroscience; Journal of Neuroscience Methods; Neuroscience Letters; Annals of the New York Academy of Sciences; Frontiers in Cognition; PLoS ONE (Neuroscience); NeuroImage; Journal of Neuroscience; Journal of Motor Behavior, Journal of Neuroengineering and Rehabilitation, Journal of Neurophysiology, Nature Neuroscience

Editorial Boards

• Editorial Board Member, Heliyon (Elsevier), 2016-2019
• Editorial Board Member, Frontiers in Psychology (focus in Cognitive & Behavioral Neuroscience), 2016-2020

Grant Review

• National Center of Neuromodulation for Rehabilitation, 2020-present
• NIH *(on leave from NIH Study Section service until completion of term of the National Advisory Board on Medical Rehabilitation Research (NABMRR), NIH)*
    - Musculoskeletal Rehabilitation Sciences (MRS) Panel, 2020-2021
    - ETTN-C(10) Small Business: Clinical Neurophysiology, Devices, Neuroprosthetics and Biosensors Panel, 2019-2022
    - *RPHB-R (12)* Small Business: Neuro/Psychopathology, Lifespan Development Special Emphasis Panel, 2014-2019
    - MOSS V - Musculoskeletal, Rehabilitation and Skin Sciences (MRS) Panel, 2019
    - MOSS V - Pediatric Rehabilitation Panel, 2019
    - NIH, ETTN 2018/01 Special Emphasis Panel, Emerging Technologies in Neuroscience, 2017
    - NIH, *ZEB1 OSR-F (O1) R* Health Disparity SBIR Review Panel, 2016
• National Science Foundation, Cognitive Neuroscience Program Proposal Reviewer; 2007, 2008, 2012
• Veterans Affairs Program Pilot Grant Panel, 2007-2009
• Netherlands Organization for Scientific Research, 2010
• AXA Research Fund Chair Review Board, 2018

MENTORING

Student Mentoring

Post-doctoral

• Mackenzie Carpenter, M.D., 2006-2008
-Presently, Professor, Neurology, Johns Hopkins Hospital
• J.C. Mizelle, Ph.D., 2008-2010
-Presently, Associate Professor, East Carolina University
• Anna Berry, DPT, 2008-2010
-Presently in Private Practice
• Oindrila Sinha, 2025-2027 - Jack and Dana McCallum Early Career Fellowship in Neurorehabilitation

Graduate Students

-Direct mentorship

•Victoria Poole, Doctoral Student (Biomedical Engineering, Perdue), 2008-2010
-Associate Professor, Dept. Orthopedic Surgery, Rush University
•Nikhilesh Natraj , Doctoral student (Applied Physiology), 2009-2015, http://hdl.handle.net/1853/56207
-Presently, Senior Research Engineer, University of California, San Francisco
•William Cusack, Doctoral student (Applied Physiology), 2009-2014, http://hdl.handle.net/1853/53420
-Presently, Technical Program Manager, Neural Interfaces, Meta
•Rachel Kelly, Doctoral student (Applied Physiology), 2009-2015, http://hdl.handle.net/1853/53589
-Presently, Principal Scientist, Exponent
•John Johnson, Doctoral student (Applied Physiology), 2014-2022, https://hdl.handle.net/1853/72625
-Presently, Research Scientist, Neurogram
•Kristel Bayani, Doctoral student (Applied Physiology), 2014-2021, http://hdl.handle.net/1853/67140
-Presently, Principal User Experiences Researcher, Home Depot
•Regan Lawson, Doctoral student (Applied Physiology), 2014-2018, http://hdl.handle.net/1853/60690
-Presently, Managing Scientist, Exponent
•Bennett Alterman, Doctoral student (Applied Physiology), 2017-2022, https://hdl.handle.net/1853/72639
-Presently, postdoctoral fellow, Emory University School of Medicine
•Mary Alice Saltáo da Silva, Doctoral student (Applied Physiology), 2017-2021, http://hdl.handle.net/1853/67184
-Presently, Clinical Consultant, Bain and Company
•Layla Abdullatif, Doctoral student (Applied Physiology), 2021-present
•Phenique Parker, Masters student (Biological Sciences), 2022-2024
-Presently, clinical research coordinator, Children's Hospital of Atlanta
•Robin Rackerby, Masters student (Biological Sciences), 2022-2024
•Jennifer Sharpe, Doctoral student (Bioengineering), 2022-present
•Laura Crews, Doctoral student (Applied Physiology), 2024-present

-Co-mentorship

•Namrita O'Dea, Doctoral student (Applied Physiology), 2011-2015
•Irrum Niazi, Doctoral student (Applied Physiology), 2011-15
•Matt Wittbrodt, Doctoral student (Applied Physiology), 2014-18
•James Broadway, Doctoral student (Psychology), 2011-2014
•Ashley Johnson, Doctoral student (Electrical and Computer Engineering), 2008-2012
•Catriona Tarto, Masters student (Electrical and Computer Engineering), 2019-2020
•Christina Bui, Masters student (Digital Media), 2019-2020
•Jacob Spencer, Doctoral student, (Applied Physiology), 2021-2025

-Doctoral Committee membership

University of Maryland School of Medicine

• J.C. Mizelle	Co-Mentor	2006-2008

School of Applied Physiology/Biological Sciences, Georgia Tech

•Zhengqin Fan	Predoctoral Advisory Committee Member	2008-2009
•Brian Selgrade	Predoctoral Advisory Committee Member	2011-2014
•Irrum Niazi	Predoctoral Advisory Committee Member	2011-2015
•Dylan Lee	Committee/Qualifying Exam Co-Chair	2012-2015
•Matthew Wittbrodt	Qualifying Exam Committee Chair	2014
•Elma Kajtaz-Rahman	Qualifying Exam Committee Chair	2015
•Kyunggeune (Ted) Oh	Predoctoral Advisory Committee Member	2017-2020
•Chase Rock	Predoctoral Advisory Committee Member	2020-2024

School of Psychology, Georgia Tech

•James Broadway, Jr.	Predoctoral Advisory Committee Member	2010-2012
•Savannah Cookson	Qualifying Exam Committee member	2014
•Derek Smith	Qualifying Exam Committee member	2016
•John Starnes	Master's Thesis Committee member	2018-2020

School of Electrical and Computer Engineering, Georgia Tech

•Ashley Johnson	Doctoral Dissertation Committee Member	2009-2012
•Victor Emeli	Doctoral Dissertation Committee Member	2020-2024

George W. Woodruff School of Mechanical Engineering, Georgia Tech

•Jihwan Jung	Master's Thesis Committee Member	2017-2019
•Joshua Lee	Doctoral Dissertation Committee Member	2020-2023

Wallace H. Coulter Department of Biomedical Engineering, Georgia Tech and Emory University

•Taniel Winner	Doctoral Dissertation Committee Member	2021-2024
•Scott Boebinger	Doctoral Dissertation Committee Member	2021-present

Emory University School of Medicine

•Lauren Edwards	Doctoral Dissertation Committee Member	2017-2020

-Masters in Prosthetics and Orthotics Capstone Mentorship

•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
•Beth Petrunich, MS (Prosthetics and Orthotics) Student, 2015-2016
Best Capstone Project Award, 2016

•Malone Gasler, MS (Prosthetics and Orthotics) Student, 2015-2016
Best Capstone Project Award, 2016
•Lauren Levinson, MS (Prosthetics and Orthotics) Student, 2016-2017
Best Capstone Project Award, 2017
•Sarah Mosley, MS (Prosthetics and Orthotics) Student, 2016-2017
Best Capstone Project Award, 2017
•Shou Wang, MS (Prosthetics and Orthotics) Student, 2017-2018
•James Kling MS (Prosthetics and Orthotics) Student, 2017-2018
•Jade Lee MS (Prosthetics and Orthotics) Student, 2018-2019
•William Hendrix MS (Prosthetics and Orthotics) Student, 2018-2019

Undergraduate Students
-*Undergraduate Thesis*
•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
•Marissa D'Souza, Computing, 2014-2016
•Neel Atawala, 2016-2019
Inaugural GT Neuroscience Undergraduate Thesis, 2019
•Danielle Temples, 2016-2018
•Emily Keeton, 2018-2020
•Emma Turner, 2018-2020
•Olivia Cox, 2019-2020
•Erin Williams, 2019-2021

-*Lab Mentorship*
•Jason Earnest
Presidential Undergraduate Research Award (PURA) Trainee, 2009
•Teresa Tang, Biology (Wake Forest University)
BRAIN Award Trainee, 2009
•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
•Fulterius King, 2013-2014
•Bennett Alterman, Biology, 2014-2015
Presidential Undergraduate Research Award (PURA) Trainee
•Da Hee Lee, Biology, 2014-2015
•Annie Swanson, Biology, 2015-2016
•Madison Kukura, 2015-2016
•Meghan Dietrich, 2015-2018
•Tatyana Medina, 2015-2019
First Place Student Poster, 2017 STEM Innovators Conference
•Jordan Gayle, 2017-2018
Summer Undergraduate Research in Engineering/Sciences (SURE) program trainee
•Ifrah Walis, 2017-2018
•Sienna Tentali, 2017-2018
•Katrina Binkely, 2018-2019
•Harper Doherty, 2018-2019
•Hanna Hunde, 2018
Summer Undergraduate Research in Engineering/Sciences (SURE) program trainee
•Mary Kate Gayle, 2018-2023
•Danielle Gavetti, 2019-2021
Presidential Undergraduate Research Award (PURA) Recipient
•Saif Ali, 2019-2021
•Kristina Giddens, 2019-2020
•Erin Williams, 2018-2021
•Maria Lindsey, 2021-present
Presidential Undergraduate Research Award (PURA) Recipient
•Alexis Toliver, 2022
Summer Research Experiences for Undergraduates (REU) trainee
•Jessica Brunner (Spelman College), 2023-2024
Summer Research Experiences for Undergraduates (REU) trainee
•Shreya Dhara, 2023-present
Petit Undergraduate Research Scholar, 2025
•Katherine Earwood, 2023-present
•Laura Grace Crews (Shorter College), 2023-2024
•Tia Tweh, 2024-present
•Ethan Purcell, 2024-present
•Alysa Jordan, 2025-present
•Aria Smith, 2025-present

-*High School Students*
- Mary Kate Gayle, 2018
- Max Sandberg, 2015
- Daniel Saunders, 2014
- Charis Haynes, 2018-2020

Community Service
- Coordinator – Neuroscience Scholars Program, Patrick Henry High School, Roanoke, VA, 2008-2012
- Nickajack Elementary School Council, 2012-2015

- Nickajack Elementary School Foundation, 2017-2019
  Teacher Grant coordinator, 2016-2019
- Chair, Campbell Middle School Council, 2016-2017

BOOKS AND 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

- **Wheaton, L.A.** Section editor for "Volume 5: Neurorecovery of Function" *in* Encyclopedia of the Human Brain, 2 ed. (Elsevier), ISBN: 978-0-12-820481-8, 2025

SPECIAL INSTALLATIONS

- Parvin N, Pollock A, **Wheaton LA**. Heart Sense: Reflections on Physiology and Embodiment. 2022 ACCelerate Creativity and Innovation Festival

- Medina M, **Wheaton LA**, Rowe V. Action Observation Videos for Arm and Hand Occupational Therapy. 2024. YouTube. https://www.youtube.com/@ActionObservationOT/featured

PUBLISHED MANUSCRIPTS

Peer-Reviewed Research Articles

1. 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.

2. **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.

3. **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.

4. **Wheaton, L.A**., Yakota, S. & Hallett, M. Posterior parietal negativity proceeding self-paced praxis movements. Exp Brain Res 2005; 163: 535-539.

5. 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.

6. **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.

7. **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.

8. **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.

9. 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.

10. **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.

11. Hattori, N., Shibasaki, H., **Wheaton, L.A**., Wu, T., Matsuhashi, M., & Hallett, M. Discrete parieto-frontal connectivity related to grasping objects. J Neurophysiol; 2009; 101: 1267-82.

12. **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.

13. 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.

14. 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.

15. 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.

16. Mizelle, J.C. & **Wheaton, L.A.** Neural Activation for Conceptual Identification of Correct Versus Incorrect Tool-Object Pairs. Brain Research; 2010; 1354: 100-112.

17. Johnson, A; **Wheaton, L.A.**, Shinohara, M. Attenuation of Corticomuscular Coherence with Additional Motor or Non-motor Task. Clin Neurophysiol; 2011; 122: 356-63.

18. 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.

19. 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

20. 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.

21. 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.

22. 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

23. 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.

24. 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.

25. 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.

26. 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

27. 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.

28. 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.

29. 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.

30. 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

31. Natraj N, Pella YM, Borghi AM, **Wheaton LA**. Visual encoding of tool-object affordances. Neuroscience, 2015, 310: 512-527.

32. 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.

33. 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.

34. 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.

35. 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.

36. 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.

37. 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.

38. 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

39. Lawson R, Gayle 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

40. Wittbrodt MT, Sawka MN, Mizelle JC, **Wheaton LA**, Millard-Stafford ML. Exercise-heat stress with and without water replacement alters brain structures and impairs visuomotor performance. Physiological Reports, 2018, Aug;6(16):e13805.

41. Natraj N, Alterman BM, Basunia S, **Wheaton LA**. The role of attention and saccades on parietofrontal encoding of contextual and grasp-specific affordances of tools: an ERP study. Neuroscience, 2018, Dec 1;394:243-266. doi: 10.1016/j.neuroscience.2018.10.019.

42. Bayani K, Lawson RL, Levinson L, Mitchell S, Atawala N, Otwell M, Rickerson B, **Wheaton LA**. Implicit development of eye gaze strategies support motor improvements during action encoding training of prosthesis use. Neuropsychologia, 2019, Apr;127:75-83. doi: 10.1016/j.neuropsychologia.2019.02.015

43. Palmer J, **Wheaton LA**, Gray WA, Saltao da Silva MA, Wolf SL, Borich MR. Post-stroke interhemispheric cortical interactions in post stroke motor function. Neurorehabilitation and Neural Repair, 2019, Jul 22:1545968319862552. doi: 10.1177/1545968319862552

44. Topping KY, Natraj N, Temples D, Atawala N, Gale MK, **Wheaton LA**. Flexible constraint hierarchy during the visual encoding of tool-object interactions. European Journal of Neuroscience, 2021, https://doi.org/10.1111/ejn.15460

45. Topping YB, Natraj N, Khreisheh, Pargeter J, Stout D, **Wheaton LA**. Perceptuomotor relationships during paleolithic stone toolmaking learning: intersections of observation and practice during technological skill development. Communications Biology, 2021, https://doi.org/10.1038/s42003-021-02768-w

46. **Wheaton LA.** Racial equity and inclusion still lacking in neuroscience meetings. Nature Neuroscience, 2021, https://doi.org/10.1038/s41593-021-00964-9
-republished in Scientific American at Editor's request: https://www.scientificamerican.com/article/many-neuroscience-conferences-still-have-no-black-speakers/

-focus in Editorial Board of Nature Neuroscience: How much has changed this year? Nat Neurosci 24, 1639 (2021). https://doi.org/10.1038/s41593-021-00983-6

47. Johnson JT, Gavetti de Mari G, Doherty H, Hammond F, **Wheaton LA**. Alpha-Band Activity in Parietofrontal Cortex Predicts Future Availability of Vibrotactile Feedback in Prosthesis Use. Experimental Brain Research, 2022, 240(5):1387-1398, 10.1007/s00221-022-06340-8

48. Rydland J, Spiegel S, Wolfe O, Alterman B, Johnson JT, **Wheaton LA**. Neurorehabilitation in adults with traumatic upper extremity amputation: a scoping review. Neurorehabilitation and Neural Repair 2022; 36(3), 208-216 https://doi.org/10.1177/15459683211070277

49. Alterman BL, Keeton E, Ali S, Binkley K, Hendrix W, Lee PJ, Wand S, Kling J, Johnson JT, **Wheaton LA**. Partial hand prosthesis users show improved reach-to-grasp behavior compared to transracial prosthesis users with increased task complexity. J Motor Behavior, 2022, 54(6):706-718. https://doi.org/10.1080/00222895.2022.2070122

50. Kelly E, **Wheaton, LA**, Hammond III, FL. The Effect of Tactor Composition and Vibrotactile Stimulation on Sensory Memory for a Haptic Feedback Display. 32nd IEEE International Conference on Robot and Human Interactive Communication, 2023, pp. 456-463, doi: 10.1109/RO-MAN57019.2023.10309396.

51. Alterman BA, Ali S, Keeton E, Binkley K, Hendrix W, Lee PJ, Johnson JT, Wang S, Kling J, Gale MK, **Wheaton LA**. Grasp posture variability leads to greater ipsilateral sensorimotor beta activation during simulated prosthesis use. J Motor Behavior, 2024, 1–13. https://doi.org/10.1080/00222895.2024.2364657

Peer Reviewed Review Articles

1. **Wheaton, L.A.** Parietal representations for hand-object interactions. J. Neurosci 2007; 27: 969-970, 10.1523/jneurosci.5332-06.2007

2. **Wheaton, L.A.** and Hallett, M. Ideomotor apraxia: a review. J Neurol Sci 2007; 260: 1-10, 10.1016/j.jns.2007.04.014

3. 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, 10.1097/PHM.0b013e31815e6727

4. 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, 10.1682/jrrd.2007.02.0034

5. 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

6. Mizelle, J.C. & **Wheaton, L.A.** How can we improve our understanding of skillful motor control and apraxia? Insights from theories of "affordances". Font Human Neuroscience 2014; doi: 10.3389/fnhum.2014.00612

7. **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; https://doi.org/10.1186/s12984-017-0256-8

8. **Wheaton, L.A.** Rehabilitating Rehabilitation: How a Renewed Focus on Environment and Therapy May Influence Our Perspective Brain Function Neurorehabilitation. Within: How do Black Lives Matter in Teaching, Lab Practices, and Research? Pollock A, and Roy D (eds.) Catalyst 2017, https://doi.org/10.28968/cftt.v3i1.28793

Papers currently under review

1. Abdullatif L, Rove V, Lindsey M, **Wheaton LA.** Patterns of visual attention during action observation in stroke rehabilitation: a feasibility and exploratory study. Neurorehabilitation and Neural Repair (2nd round of review)

2. Sharpe J, Rockery R, Crews LG, **Wheaton, LA**. Functional outcomes of sensory feedback in upper limb prosthetic devices. Disability Rehabilitation.

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
• 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
• 39th Annual Meeting of the Society for Neuroscience, Mini-Symposium

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
• 40th Annual Meeting of the Society for Neuroscience Nanosymposium

2012
• Department of Psychology, Emory University
• Department of Rehabilitation Medicine, Emory University School of Medicine
• International Conference on Spatial Cognition, Rome, Italy

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

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
• American Academy for Physical Anthropology, Atlanta GA
• Politics of Health in the U.S. South, Vanderbilt University

2017
• Neural Control of Movement Symposium, Dublin, Ireland

- GT College of Sciences Advisory Committee Meeting
- American Congress of Rehabilitation Medicine Annual Meeting, Atlanta, GA
- American Society for Neurorehabilitation Annual Meeting, Baltimore, MD
  -invited organizer and discussion leader - Controversies in Neurorehabilitation Session Brain stimulation: does it work?

2018
- American Society for Neurorehabilitation, San Diego, CA
- Representation Matters: Black Images in STEM (panelist and presenter), Atlanta

2019
- Spelman Multi-Disciplinary Symposium on Race, Data, and Health, Atlanta GA
- International Symposium on Medical Robotics, Atlanta GA
- Frontiers in Neuroscience Seminar Series, Emory University, Atlanta GA
- Physical Therapy Association of Georgia Neurology Network Symposium, Atlanta GA

2021
- Frontiers in Regenerative Rehabilitation, University of Pittsburgh School of Medicine
- Neuroscience Seminar Series, Georgia Tech
- School of Engineering and Applied Science, University of Pennsylvania
- Moss Rehabilitation Research Institute Frontiers Seminar, Philadelphia, PA

2022
- Academy of Academic Physiatry Annual Meeting, New Orleans, LA
- University of Southern California, Los Angeles, CA
- Oxyopia Seminar Series, University of California at Berkeley
- University of Guelph, Ontario, Canada
- School of Psychology, Georgia Tech
- Grand Rounds, Neurology, UCLA
- Biology Seminar Series, University of Georgia

2023
- Neuroscience Series, Penn State
- Diversity Symposium Lecture Series, Children's Hospital of Philadelphia
- American Society for Neurorehabilitation Annual Meeting, Charleston, SC
- Agnes Scott College, Atlanta GA
- Physics, Morehouse College

2024
- Academy of Academic Physiatry Annual Meeting, Orlando, FL
- Research Engagement Workshop, Georgia Tech
- Neuroscience Retreat, Emory University
- Georgia Tech and Shepherd Center Research Collaborative
- Brook Byers Institute for Sustainable Systems, Georgia Tech
- Annual Congress of Rehabilitation Medicine, Dallas, TX

2025
- International Neuropsychological Symposium, Elba, Italy

- Grand Rounds, University of Pittsburgh, Department of Physical Medicine and Rehabilitation