Tiffany M. Rodriguez

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Education

In Progress	Ph.D.	Texas A&M University, College Station, TX	Motor Neuroscience
2004	BS	Texas A&M University, College Station, TX	Motor Control

Professional Experience

July 2007 – Feb 2008 — Graduate Research Assistant, Neuromuscular Physiology Laboratory; Department of Health and Kinesiology, Texas A&M University.

July 2007 – May 2005 — Graduate Research Assistant, Motor Control Laboratory; Department of Health and Kinesiology, Texas A&M University.

May 2004 – May 2005 — Graduate Student, Motor Control Laboratory; Department of Health and Kinesiology, Texas A&M University.

Jan 2004 – May 2004 — Research Assistant, Coordination Dynamics Laboratory; Department of Health and Kinesiology, Texas A&M University.

Aug 2002 – Dec 2004 — Research Assistant, Adapted Physical Education Laboratory; Department of Health and Kinesiology, Texas A&M University.

Teaching Experience

Fall 2007 — Teaching Assistant
KINE 307: Lifespan Motor Development
Instructor: Dr. Evangelos A. Christou
Department of Health and Kinesiology, Texas A&M University

2005 – 2007 — Guest Lecturer

KINE 426: Biomechanics of Human Movement
Instructor: Dr. Caroline J. Ketcham
Department of Health and Kinesiology, Texas A&M University

2002 – 2004 Teaching Assistant
KINE 429: Adapted Physical Education
Instructor: Dr. Dawn D. Rosser
Department of Health and Kinesiology, Texas A&M University

Research Mentoring Experience

Undergraduate

2007	Abby Dudensing Keith Kahil	
2006	Jennifer Abshier Abby Dudensing	Jennifer Long Christopher Pritchard
2005	Leah Bates Sofia Costa Allison Daly Abby Dudensing Kayla Felderhoff	Courtney Golden Cortney Jarvis Donaciano Munoz Christopher Pritchard

Graduate

Fall 2007	Jasmine Gonzalez Navneet Kaur
Spring 2007	Noah Dean Sunghan Lee Joohyun Rhee

Publications

Invited Book Chapters

Christou EA and **Rodriguez TM**. Aging and Neuromuscular Adaptations with Practice. In: *Advances in Neuromuscular Physiology of Motor Skills and Muscle Fatigue*. (In preparation) pp. Research Signpost.

Recent Publications

Ketcham CJ, **Rodriguez TM**, Zihlman KA (2007). Targeted aiming movements are compromised in non-affected limb of persons with Stroke. *Neurorehabilitation and Neural Repair*, 21(5): 388-397.

Submitted and In Preparation

Rodriguez TM and Ketcham CJ (submitted). Two-segment aiming: influence of target-size and movement direction in older adults.

Rodriguez TM, Ketcham CJ, Christou EA (submitted). Impaired planning and amplified high-frequency movement oscillations contribute to bradykinesia in patients with Parkinson's disease.

Christou EA and **Rodriguez TM** (submitted). Time and not force is transferred between upper and lower limbs.

Christou EA, **Rodriguez TM**, Enoka RM (submitted). Altered muscle activation and greater motor output variability impair the spatial and timing accuracy of older adults.

Rodriguez TM and Christou EA (in preparation). Coactivation impairs time and force end-point accuracy and variability.

Presentations and Abstracts

Rodriguez TM, Mehta KS, Mills, LJ, Kruckemeyer JR, Hoes DH, Christou EA. Time but not force output gets transferred between upper and lower limb following practice. *Society for Neuroscience Abstracts*, 33, 2007. (Presentation at the Society of Neuroscience Annual Meeting, San Diego, CA)

Christou EA, **Rodriguez TM**, Mills LJ. Altered muscle activation and greater motor output variability impair the spatial and timing accuracy of older adults. *Society for Neuroscience Abstracts*, 33, 2007. (Presentation at the Society of Neuroscience Annual Meeting, San Diego, CA)

Hunter SK, Yoon T, Patel B, **Rodriguez TM**, Christou EA. Low-frequency oscillations in force are associated with heart rate. *Society for Neuroscience Abstracts*, 33, 2007. (Presentation at the Society of Neuroscience Annual Meeting, San Diego, CA)

Ketcham CJ, **Rodriguez TM**, Christou EA. Co-contraction in multijoint targeted aiming movements: comparison of young, elderly and Parkinsonian adults. *Society for Neuroscience Abstracts*, 33, 2007. (Presentation at the Society of Neuroscience Annual Meeting, San Diego, CA)

Rodriguez TM and Ketcham CJ. Interlimb and intralimb bimanual coordination. *Journal of Sport and Exercise Psychology*, 29, 2007. (Presentation at NASPSPA, San Diego, CA)

Ketcham CJ, **Rodriguez TM**, Carter RK. Influence of target size and movement direction in two-segment aiming movements in young, elderly, and Parkinson's disease patients. *Journal of Sport and Exercise Psychology*, 29, 2007. (Presentation at NASPSPA, San Diego, CA)

Rodriguez TM and Ketcham CJ. Two-segment aiming: influence of target-size and movement direction in Parkinson's disease patients. Student Research Week, Texas A&M University, 2007

Dudensing AL, **Rodriguez TM**, Ketcham CJ. Movement amplitude changes and two-segment goal-directed movements. Student Research Week, Texas A&M University, 2007

Rodriguez TM, Ketcham CJ. Interlimb and intralimb coordination during bimanual ellipse drawing. *Society for Neuroscience Abstracts*, 32, 2006 (Presentation at Society for Neuroscience Annual Meeting, Atlanta, GA)

Ketcham CJ, Carter RK, **Rodriguez TM**. Two-segment aiming movements are influenced by changes in movement direction, complexity of multijoint coordination, and target size. *Society for Neuroscience Abstracts*, 32, 2006 (Presentation at Society for Neuroscience Annual Meeting, Atlanta, GA)

Rodriguez TM, Carter RK, Ketcham CJ. Influence of target size and movement direction in Parkinson's disease patients. *Journal of Sport and Exercise Psychology*, 28, 2006. (Presentation at NASPSPA, Denver, CO)

Carter RK, Ketcham CJ, **Rodriguez TM**. The influence of target size and joint coordination in aiming movements. *Journal of Sport and Exercise Psychology*, 28, 2006. (Presentation at NASPSPA, Denver, CO)

Rodriguez TM and Ketcham CJ. Joint coordination of aiming movements in older adults. Student Research Week, Texas A&M University, 2006

Rodriguez TM, Ketcham CJ. Targeted aiming and joint coordination in older adults. *Society for Neuroscience Abstracts*, 31, 2005 (Presentation at Society for Neuroscience Annual Meeting, Washington, DC)

Ketcham CJ and **Rodriguez TM**. The influence of multijoint coordination and target size in aiming movements. *Journal of Sport and Exercise Psychology*, 27, 2005. (Presentation at NASPSPA, St. Petersburg, FL

Zihlman KA, **Rodriguez TM**, Ketcham CJ. Reciprocal aiming movements are impaired in Stroke patients when accuracy is constrained: Ipsilateral contributions to deficits experienced following a lesion. Educational Research Exchange, Texas A&M University, 2004

Rodriguez TM, Zihlman KA, Ketcham CJ. Two-segmented targeted aiming movements in Stroke patients. *Society for Neuroscience Abstracts*, 30, 2004 (Presentation at Society for Neuroscience Annual Meeting, San Diego, CA)

Zihlman KA, **Rodriguez TM**, Ketcham C.J. Aiming movements are impaired in Stroke patients when accuracy is constrained. *Society for Neuroscience Abstracts*, 30, 2004 (Presentation at Society for Neuroscience Annual Meeting, San Diego, CA)

Professional Membership

2007 – Present American College of Sport Medicine

2004 – Present	Cognitive Neuroscience Society
2004 – Present	Society for Neural Control of Movement
2004 – Present	North American Society for Psychology of Sport and Physical Activity
2004 – Present	Society for Neuroscience

Professional Service

Committee

2007 - 2008	Department Head Search Committee Department of Health and Kinesiology; *Graduate Student Representative*

Journal Reviewer

2007	*Journal of Motor Behavior*

Honors and Awards

2005 – 2008	Graduate Diversity Fellowship, Texas A&M University: 3-year $75,000 award to pursue a doctoral degree
Fall 2007	Faculty of Neuroscience Graduate Student Travel Presentation Grant
Fall 2007	Sydney and J.L. Huffines Institute for Sports Medicine and Human Performance Graduate Student Research Presentation Travel Grant
Spring 2007	Motor Control Summer School, Penn State University
Spring 2007	1st place- Oral Presentation: *'Influence of target-size and movement direction in Parkinson's disease patients'*. Student Research Week, TAMU
Fall. 2006	1st place- Graduate Life Sciences Oral Presentation: *'Multijoint coordination in Parkinson's disease patients'*. Pathways to the Doctorate Research Symposium
Fall. 2006	Faculty of Neuroscience Graduate Student Travel Presentation Grant
Fall. 2006	Department of Health & Kinesiology Graduate Student Travel & Research Grant
Fall 2006	Sydney and J.L. Huffines Institute for Sports Medicine and Human Performance Graduate Student Research Presentation Travel Grant
Spring 2006	Interdisciplinary Research Recognition Award: *'Joint coordination of aiming movements in elderly adults'.* Student Research Week, TAMU

Spring 2006	Oral Presentation Award: '*Joint coordination of aiming movements in elderly adults'* Student Research Week, TAMU
Spring 2005	Office of Graduate Studies Research Presentation Travel Grant
Fall 2004	Department of Health & Kinesiology Graduate Student Travel & Research Grant
Spring 2004	Department of Health & Kinesiology Graduate Student Travel & Research Grant

Research Interests

The identification of biomechanical constraints and neuromuscular mechanisms that mediate and influence motor performance in young adults, older adults, Stroke patients, and Parkinson's disease patients.

The interaction of agonist and antagonist muscles as influenced by acute and chronic perturbations (fatigue, aging, disease, and learning).