

CURRICULUM VITA

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EDUCATION

- 2010-2013 Postdoctoral Associate/Fellow
Applied Neuromechanics Research Laboratory
Department of Applied Physiology and Kinesiology
Department of Neurology
University of Florida
Gainesville, Florida
- 2004-2010 PhD in Neuroscience
Northwestern University Interdepartmental Neuroscience Program
Department of Physical Therapy and Human Movement Sciences
Northwestern University
Chicago, Illinois
- 1995-2001 BS in Biology, Minor in Chemistry
School of Biological Sciences
University of Missouri – Kansas City
- BA in Music Therapy
Conservatory of Music
University of Missouri – Kansas City

PUBLICATIONS:

1. **Stegemöller**, EL, Zadikoff, C, Rosenow, J, MacKinnon, CD. (2013) Subthalamic deep brain stimulation improves movement amplitude but not hastening of repetitive finger movements. *Neuroscience Letters*. In Press.
2. **Stegemöller**, EL, Vallabhajosula, S, Okun, M, Hass, CJ. (2013) Selective advantage of non-tremor dominant over tremor dominant Parkinson's disease for use of low frequency stimulation. *NeuroRehabilitation*. In Press.
3. **Stegemöller**, EL, Roper, J, Hass, CJ, Kennedy, DJ. (2013) Changes in gait kinematics and lower back muscle activity post radiofrequency denervation of the zygapophysial joint: a case study. *Spine*. In Press.

4. Roper, J, **Stegemöller**, EL, Tillman, M, Hass, CJ. (2013) Metabolic cost and perceived effort during split belt treadmill walking in young healthy adults. *European Journal of Applied Physiology*, 113 (3); 729-34.
5. Nocera, J, **Stegemöller**, EL, Malaty, I, Okun, MS, Marsiske, M, Schmidt, P, Hass, CJ (2013) Using the timed up and go test to predict falling in Parkinson's disease. *Arch Phys Med Rehabil*, 94(7): 1300-5.
6. Roemmich, RT, Nocera, JR, **Stegemöller**, EL, Hassan, A, Okun, MS, Hass, CJ. (2013) Locomotor adaptation and adaptive learning in Parkinson's disease and normal aging. *Clinical Neurophysiology*. In Press.
7. Fernandez KM, Roemmich RT, **Stegemöller** EL, Amano S, Thompson A, Okun MS, Hass CJ. (2013) Gait initiation impairments in both Essential Tremor and Parkinson's Disease. *Gait and Posture*. In Press.
8. Roemmich, RT, Field, AM, Elrod, JM, **Stegemöller**, EL, Okun, MS, Hass, CJ (2013) Interlimb coordination is impaired during walking in persons with Parkinson's disease. *Clinical Biomechanics*, 28(1); 93-7.
9. **Stegemöller**, EL, Buckley, T, Pitsikoulis, C, Barthelemy, E, Roemmich, RT, Hass, CJ. (2012) Postural instability and gait impairment during obstacle crossing in Parkinson's disease. *Archives of Physical Medicine and Rehabilitation*, 93(4); 703-9.
10. Roemmich, RT, **Stegemöller**, EL, Hass, CJ (2012) Lower extremity sagittal joint moment production during split-belt treadmill walking. *Journal of Biomechanics*, 45(16); 2817-21.
11. Hass, CJ, Malczak, P, Nocera, JR, **Stegemöller**, EL, Shukala, A, Malaty, I, Jacobson, CE, Okun, MS, McFarland, N (2012) Quantitative normative gait data in a large cohort of ambulatory persons with Parkinson's disease. *PLoS One*, 7(8); e42337.
12. Roemmich, RT, Nocera, JR, Vallabhajosula, S, Amano, S, Naugle, KM, **Stegemöller**, EL, Hass, CJ. (2012) Spatiotemporal variability during gait initiation in Parkinson's disease. *Gait and Posture*, 36(3); 340-3.
13. **Stegemöller**, EL, Allen, DP, Simuni, T, MacKinnon, CD. (2010) Rate-dependent impairments in repetitive finger movements in patients with Parkinson's disease are not due to peripheral fatigue. *Neuroscience Letters*, 482(1); 1-6.
14. Allen, DP, **Stegemöller**, EL, Zadikoff, C, Rosenow, J, MacKinnon, CD. (2010) Suppression of deep brain stimulation artifacts on the electroencephalogram by frequency-domain Hampel filtering. *Clinical Neurophysiology*, 121(8); 1227-1232.
15. **Stegemöller**, EL, Simuni, T, MacKinnon, CD. (2010) Reply: Effect of movement frequency on repetitive finger movements in patients with Parkinson's disease. *Movement Disorders*, 25, 252-253.
16. **Stegemöller**, EL, Simuni, T, MacKinnon, CD. (2009) Effect of movement frequency on repetitive finger movements in patients with Parkinson's disease. *Movement Disorders*, 24, 1162-1169.
17. **Stegemöller**, EL, Simuni, T, Mackinnon, CD. (2009) Syncopation deficits in older adults and patients with Parkinson's disease. *Brain Research*, 1290; 12-20.
18. **Stegemöller**, EL, Skoe, E, Nicol, T, Warrier, C, Kraus, N. (2008) Effects of musical training on the sound structure of speech and song. *Music Perception*, 25(5); 419-428.

FUNDING

Current	Parkinson's Action Network Postdoctoral Research Advocacy Award Parkinson's Action Network \$12,500
Current	Effects of Singing on Speech and Swallow in Patients with Parkinson's Disease. Principal Investigator Parkinson's Study Group \$24,995.18
3/2011 – 3/2012	The Effects of Disease Progression on Rate-Dependent Impairments in Repetitive Finger Movements in Patients with Parkinson's Disease. Principal Investigator. University of Florida Clinical and Translational Science Institute Pilot and Collaborative Research Projects Program Supported in part by the National Institutes of Health (NIH) and National Center for Research Resources (NCRR) CTSA grant 1UL1RR029890. \$7,200

SCIENTIFIC PRESENTATIONS

1. **Stegemöller**, EL, Tilman, MD, McFarland, N, Subramony, SH, Okun, MS, Hass, CJ (2013) Repetitive finger movement performance differs between Parkinson's disease and atypical Parkinsonian syndromes. Abstract: Society for Neuroscience.
2. **Stegemöller**, EL, Tilman MD, MacKinnon, CD, Hass CJ, Okun, MS (2013) Movement festination of repetitive movements on the more and less affected side in patients with Parkinson's disease. Abstract: World Parkinson's Congress.
3. **Stegemöller**, EL, Wilson, JP, Hazamy A, Okun, MS, Altmann, LJP, Hass, C (2013) Associations between cognitive performance and gait variability in Parkinson's disease. Abstract: American Society of Biomechanics
4. **Stegemöller**, EL, Hass, CJ, Kennedy, DJ (2013) Changes in gait during treadmill walking after radiofrequency neurotomy of the low back. Abstract: American Academy of Physical Medicine and Rehabilitation.
5. **Stegemöller**, EL, Altmann LJP, Hazamy A, Wilson J, Okun, MS, Hass, CJ (2012) Effects of dual task on cycling performance in persons with PD. Abstract: Society for Neuroscience.
6. Funderburke, BA, Kopf, L, Sapienza, C, **Stegemöller**, EL, Wingate, J, Altmann, L (2012) Effect of singing treatment on voice function in patients with Parkinson's disease. Abstract: Voice Foundation.
7. Altmann, LJP, **Stegemöller**, EL, Hazamy, AA, Wilson, JP, Bowers, D, Sapienza, CM, Okun, MS, Hass, CJ. (2012) Graded dual task benefits of cognitive tasks on cycling in Parkinson's disease. Abstract: Society for Movement Disorders.
8. Hazamy, AA, Altmann, LJP, Wilson, JP, **Stegemöller**, EL, Bowers, D, Sapienza, CM, Okun, MS, Hass, CJ. (2012) Dual task dissociations in cognitive performance in Parkinson's disease. Abstract: Society for Movement Disorders.

9. Wilson, JP, Altmann, LJP, Hazamy, AA, **Stegemöller**, EL, Okun, MS, Hass, CJ (2012) Dual task effects during sentence production in Parkinson's disease. Abstract: Society for Movement Disorders.
10. Roemmich, RT, Patten, C, Corti, M, **Stegemöller**, EL, Hass, CJ (2012) Split-belt training alters inter-hemispheric inhibition and improves interlimb coordination in persons with Parkinson's disease. Abstract: Society for Neuroscience.
11. **Stegemöller**, EL, Vallabhajosula, S, Okun, M, Haq, I, Hwynn, N, Hass, CJ. (2011) Is there a case for Low Frequency DBS in Parkinson's Disease. Abstract: Society for Neuroscience.
12. Roper, J, **Stegemöller**, EL, Kennedy, DJ, Hass, CJ. (2011) Acute kinematic and physiologic changes during walking pre and post radiofrequency denervation of the zygapophysial joint. Abstract: Society for Neuroscience.
13. **Stegemöller**, EL, Allen, DP, Simuni, T., MacKinnon, CD (2010). Movement related coherence during repetitive finger movements in patients with Parkinson's disease. Abstract: Society for Neuroscience.
14. **Stegemöller**, EL, Allen, DP, Simuni, T., MacKinnon, CD. (2010) Rate-dependent impairments in repetitive finger movements in Parkinson's disease are associated with tonic suppression of movement-related cortical oscillations. Abstract: Society for Movement Disorders.
15. **Stegemöller**, EL, Allen, DP, Zadikoff, C, Rosenow, J, MacKinnon, CM (2009) Unconstrained repetitive finger movements in patients with Parkinson's disease: effects of deep brain stimulation. Abstract: Society for Neuroscience.
16. **Stegemöller**, EL, Simuni, T, MacKinnon, CD. (2008) Timing and frequency barriers during repetitive finger movements in patients with Parkinson's disease. Abstract: Society for Movement Disorders.
17. **Stegemöller**, EL, Skoe, E, Nicol, T, Warrier, C, Kraus, N. (2007) Effects of musical training on the sound structure of speech and song. Abstract: Association for Research in Otolaryngology Conference.
18. **Stegemöller**, EL, Myers, L, MacKinnon, CD. (2006) Unconstrained repetitive finger movements in patients with Parkinson's disease: effects of external cueing, movement frequency, movement timing and medication. Abstract: Society for Neuroscience.

INVITED PRESENTATIONS

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| 2013 | Application of Evidence Based Music-Brain Data in Autism
CMTE Course: National Music Therapy Conference |
| 2013 | Keynote: Evidence Related to Music and the Brain: Implications for Music Therapy Practice
Music Settlement's Centennial Symposium |
| 2013 | Keynote: Your Brain on Music, Translating Neuroscience into Clinical Practice
Oregon Association of Music Therapy Conference |
| 2013 | Music Therapy in Parkinson's Disease
Oregon Association of Music Therapy Conference |
| 2010 | Moving to the Music; What is the Brain Doing?
National Music Therapy Conference |

- 2008 Symposium: National Music therapy Conference
Music Therapy, The Brain, and Parkinson's Disease
National Music Therapy Conference
- 2008 Music Therapy Research: A How-To for Creating and Implementing
Effective Experimental Designs.
CMTE Course: Great Lakes and Midwest Regional Music Therapy
Conference
- 2006 Brain Function and Autism
CMTE Course: Eastern Michigan University
- 2006 Neuroanatomy of Music Therapy
CMTE Course: National Music Therapy Conference
- 2005 Music Therapy and Brain Plasticity
National Music Therapy Conference
- 2004 The Neuroscience of Music and Its Implications for Music Therapy
National Music Therapy Conference

TEACHING

- 2013 Motor Control and Learning
- 2011 Research Methods
University of Florida
- 2006 Sensory Neurobiology
Graduate Teaching Assistant
Northwestern University
- 2005 Anatomy and Physiology of the Vocal Mechanism
Graduate Teaching Assistant
Northwestern University

MEMBERSHIPS

- Member Society for Neuroscience
- Member Movement Disorder Society
- Member Parkinson's Action Network
- Member Gold Key National Honor Society
- Member Pi Kappa Lambda
- Member American Music Therapy Association