

JACOB J. SOSNOFF

Department of Kinesiology and
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Motor Control Laboratory
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EDUCATION

The Pennsylvania State University	Ph.D., Kinesiology (Gerontology minor)	2005
The Pennsylvania State University	M.S., Kinesiology	2002
Ithaca College	B.S., Exercise and Sport Science, <i>summa cum laude</i>	2000

PROFESSIONAL EXPERIENCE

1. Post-Doctoral

Assistant Professor: Department of Kinesiology and Community Health; University of Illinois at Urbana Champaign; 2005-2011.

Faculty Affiliate, Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign, 2006-present

Research Fellow, Center of Advanced Study, University of Illinois at Urbana-Champaign, 2009-2010.

Faculty Fellow, National Center for Supercomputing Applications, 2009-2010.

Faculty Affiliate, Department of Bioengineering, University of Illinois at Urbana-Champaign, 2010-present.

Associate Professor: Department of Kinesiology and Community Health; University of Illinois at Urbana Champaign; 2011-present.

2. Graduate

Kligman Research Fellow: Motor Behavior Laboratory, Department of Kinesiology, The Pennsylvania State University, 2004-2005. (Research mentor: Dr. Karl Newell, Associate Dean of Graduate Research and Education, College of Health and Human Development)

NIA Pre-Doctoral Fellow: Motor Behavior Laboratory, Department of Kinesiology, The Pennsylvania State University, 2001-2004. (Research mentor: Dr. Karl M. Newell)

Research Assistant: Motor Behavior Laboratory, Department of Kinesiology, The Pennsylvania State University, August 2000-June 2001. (Research adviser: Dr. Karl M. Newell).

Graduate Teaching Assistant: Movement Bioscience, Department of Kinesiology, The Pennsylvania State University, August 2000-June 2001. (Supervisor: Dr. Robert Rickets).

3. Undergraduate

Undergraduate Teaching Assistant: Physiology I & II, Department of Exercise and Sport Sciences, Ithaca College, August 1998-May 1999. (Supervisor: Dr. Thomas Swenson, Department of Exercise and Sport Sciences).

ACADEMIC HONORS

Kenneth L. Knight Award for Outstanding Research Manuscript	Journal of Athletic Training	2009
Faculty Fellow	National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign	2009-2010
Research Fellow of the Center of Advanced Study	Center for Advanced Study, University of Illinois at Urbana-Champaign	2009-2010
Arnold O. Beckman Research Award	University of Illinois at Urbana-Champaign	2005
Kligman Research Fellowship	College of Health and Human Development, The Pennsylvania State University	2004
Graduate Research Award	Department of Kinesiology, The Pennsylvania State University	2002
NIA Pre-doctoral Training Fellowship	Gerontology Center The Pennsylvania State University	2001-2004
Professional Excellence	Department of Exercise and Sport Sciences	2000

Award in Exercise Science	Ithaca College	
Phi Beta Phi National Honor Society Membership	Ithaca College	1999
Dean Scholarship	Ithaca College	1996-2000

GRANTS

Sosnoff JJ. *Aging, Cardioballistics and Motor Variability.* University of Illinois Research Board for the period January 1, 2006 to December 31, 2007. \$15,086

Sosnoff JJ & Hsiao-Weckslers ET. *Aging, Physiological Complexity, Functional Limitations and Disability.* Mary J. Neer Research Fund for the period Dec 15, 2005 to December 15, 2006. \$10,000

Sosnoff JJ, Hsiao-Weckslers, ET & Fernhall, B. *Aging, Physiological Complexity, Functional Limitations and Disability.* Aging Incentive Grant, Aging Initiative, University of Illinois, for the period May 2, 2006 to May 1, 2007. \$5,000

Sosnoff, JJ. *Variability of Cognitive Processing in Older Adults: The Role of Cardiovascular Fitness.* Center for Healthy Minds, for the period June 1, 2006 to May 30, 2007. \$19,490

Sosnoff JJ & Motl R. *Alleviating spasticity with chronic cycling exercise.* National Multiple Sclerosis Society, for the period September 30, 2006 to September 29, 2007. \$44,000

Rosengren KS & **Sosnoff JJ** *Effects of regular Taiji practice on cognitive and sensorimotor performance.* Center for Healthy Minds, for the period June 1, 2007 to May 30, 2008. \$15,000

Sosnoff JJ & Ebersole KT. *Shoulder pain in manual wheelchair users: the influence of gender.* University of Illinois Research Board for the period March 20, 2008 to May 30, 2009. \$11,332.

Sosnoff JJ, Frogley M, Bajscy P, Hsiao-Weckslers ET & Carlton LG. *Wheelchair Use and Shoulder Pain: The Role of Motor Variability.* Mary J. Neer Research Fund for the period Jan 12, 2009 to December 30, 2010. \$14,989.

Loucks TJ & **Sosnoff JJ.** *Sensorimotor Dedifferentiation as a Marker of Aging: Behavioral and Neurological Evidence,* Mary J. Neer Disability Research Fund for the period May 15, 2009 to May 1, 2010. \$14,725.

Sosnoff JJ. *Accelerometry of Manual Wheelchair Propulsion,* National Center for Supercomputing Applications, August 15, 2009 to May 15, 2010. \$10,000

Loucks TJ, **Sosnoff JJ,** & Sutton B. *Demyelination in motor pathways of the Central Nervous System predicts motor control reductions in healthy aging.* Center for Health, Aging and Disease. May 15, 2010 to May 14, 2011. \$15,000.

Sosnoff JJ & Motl RW. *Effect of Acute Passive Leg Cycling on Spasticity of the Legs in Spinal Cord Injury.* University of Illinois Research Board for the period August 15, 2010 to August 14, 2011. \$13,370.

Sutton B, Kramer AF, Loucks TJ, & **Sosnoff JJ.** *Demyelination in the motor system and reductions in motor control with advanced age.* American Federation of Aging Research (A10338), \$75,000. Role: Co-I.

Hsiao-Weckslers ET, **Sosnoff JJ,** & Lilly B. *Intelliwheels: the continuously variable transmission for manually-propelled wheelchairs.* National Collegiate Inventors and Innovators Alliance. \$20,000. Role: Co-I.

Sosnoff JJ & Motl RW. *TheraStride™ Training in persons with Multiple Sclerosis*. Innoventor, Inc., \$150,000. Role: PI (5%).

Goldman ML, Motl RW, Pula JH & **Sosnoff JJ**. *Study of walking dysfunction in ambulatory impaired MS subjects: Defining timed 25 foot walk (T25FW) cut points*. Biogen, Inc. \$66,000. Role: Co-I.

Sosnoff JJ (PI), & Hsiao-Weckslers ET. *Propulsion Mechanics Variability and Shoulder Pain in Manual wheelchair Users*, National Institute of Health (#1R21HD066129-01), \$392,578. Role: PI (15%).

Sosnoff JJ, Hsiao-Weckslers ET & Motl RW. *Acute Exercise, Spasticity and Functional Outcomes in Multiple Sclerosis: Differential Effects of Duration and Intensity*. National Multiple Sclerosis Society RG 4333A2/2, \$295,673. Role: PI (25%). For the period 4/1/11-3/31/13.

Motl RW, McAuley E, Fernhall B, **Sosnoff JJ**, Elliot J. *Project METS in MS: Multimodal exercise training stimulus in multiple sclerosis*, National Multiple Sclerosis Society (RG 4499A3/1). \$286,700. Role: Co-I (10%). For the period 4/1/11-3/31/13.

Sosnoff JJ, Motl RW, McAuley E, Pula JP, Finlayson M, Morrison S. *Project E-FIT: Exercise-Fall Intervention Training in Multiple Sclerosis*. Center for Health, Aging and Disability. \$15,000. Role: PI. For the period 6/1/2011-5/30/2012.

Wilund KR, McDonald JW, Motl RW, **Sosnoff JJ**. *Efficacy of Functional Electrical Stimulation-Enhanced Cycling in Disabled Populations*. Center for Health, Aging and Disability. \$15,000. Role: co-I. For the period 6/1/2011-5/30/2012.

Sosnoff JJ, McAuley E, Motl RW, Finlayson M, Pula JH, Morrison S. *Project FARMS: Fall Risk Reduction in Multiple Sclerosis*. Consortium for Multiple Sclerosis Centers. Consortium for Multiple Sclerosis Centers. \$39,740. Role: PI.

Scott D, Hsiao-Weckslers ET & **Sosnoff JJ**. *IntelliWheels: the automatic transmission for manually propelled wheelchairs*. (1R43HD071653-01). National Institute of Health: SBIR, \$164,567. Role: Co-I. For the period 8/1/2012-7/30/2013.

Sosnoff JJ, McAuley E, Motl RW, Finlayson M, Morrison S. *Fall Risk Reduction in Multiple Sclerosis: Exercise versus Behavior Modification*. National Multiple Sclerosis Society, \$109,981. Role: PI. For the period 10/5/2012-10/4/2013.

Pending

Rice IM, Sosnoff JJ, Hillman CH (pending). *Wheelchair Propulsion Training in Children with Physical Disabilities*. (1R21HD077207-01). National Institute of Health. \$402,210. Role: Co-PI.

Finlayson MF, Cameron M, Cattaneo D, Coote S, Matsuda P, **Sosnoff JJ**. (pending). *International MS Fall Prevention Research Network*. Canadian Institute of Health Research. \$25,000 Role: Co-I.

Sosnoff JJ, McAuley E, Motl RW, Finlayson M, Morrison S. *Fall Risk and Incidence Reduction in Multiple Sclerosis*. National Multiple Sclerosis Society, \$917,112. Role: PI. pending

Sosnoff JJ, Pilutti L, Motl RW. Body Weight Supported Treadmill Training in Advanced Multiple Sclerosis. National Multiple Sclerosis Society, \$109,472. Role: PI (1 summer month). Pending

Morrison SM, **Sosnoff JJ**. Preventing Falls in Persons with Multiple Sclerosis: The Benefits of Supervised Versus Home-Based Balance Training. National Multiple Sclerosis Society. \$44,000. Role: Co-I. Pending.

PUBLICATIONS

Refereed Articles

Ives, JC & **Sosnoff, J.** (2000). Beyond the mind body exercise hype. *The Physician and Sportsmedicine*, 28, 67-91. DOI: 10.3810/psm.2000.03.776

Sosnoff, JJ, Vaillancourt, DE, & Newell, KM. (2004). Aging and force output performance: The loss of adaptive control of multiple neural oscillators. *Journal of Neurophysiology*, 91, 172-81. DOI: 10.1152/jn.00613.

Vaillancourt, DE, **Sosnoff, JJ** & Newell, KM. (2004). Age-related changes in complexity depends on task dynamics. *Journal of Applied Physiology*, 97, 454-455. DOI: 10.1152/jappphysiol.00244.

Sosnoff, JJ, Vaillancourt, DE, Larson, L, & Newell, KM. (2005). Coherence of EMG activity and single motor unit discharge patterns in human rhythmical force production. *Behavioral Brain Research*, 158, 301-310. DOI:10.1016/j.bbr.2004.09.009

Sosnoff, JJ & Newell, KM. (2005). Intermittent visual information and the multiple timescales of visual motor control of continuous isometric force production. *Perception and Psychophysics*, 67, 335-344. DOI: 10.3758/BF03206496

Lai, S-C, Mayer-Kress, G, **Sosnoff, JJ**, & Newell, KM. (2005). Information entropy analysis of discrete aiming movements. *Acta Psychologica*, 119, 283-304. DOI:10.1016/j.actpsy.2005.02.00

Sosnoff JJ & Newell KM. (2005). Intermittency of visual information and the frequency of rhythmical force production. *Journal of Motor Behavior*, 37, 325-334. DOI: 10.3200/JMBR.37.4.325-336

Sosnoff JJ, Jordan, K, & Newell KM. (2005). Information and force level interact in regulating force output during 2 and 3 digit grip configurations. *Experimental Brain Research*, 167, 76-85. DOI: 10.1007/s00221-005-0009-y

Sosnoff JJ, Valentine AD, & Newell KM (2006). Independence between the amount and structure of variability at low force levels. *Neuroscience Letters*, 392, 165-169. DOI:10.1016/j.neulet.2005.09.010

Sosnoff JJ & Newell KM (2006). Aging, visual intermittency and variability in isometric force output, *Journal of Gerontology: B Psychological Sciences*. 61, P117-24. URL: <http://psychogerontology.oxfordjournals.org/content/61/2/P117.full.pdf+html>

Sosnoff JJ & Newell KM (2006). Information processing limitations with aging in the visual scaling of isometric force. *Experimental Brain Research*. 170, 423-32. DOI: 10.1007/s00221-005-0225-5

Sosnoff JJ & Newell KM (2006). Are age-related increases in force variability due to decrements in strength? *Experimental Brain Research*. 174, 86-94. DOI: 10.1007/s00221-006-0422-x

Sosnoff JJ & Newell KM (2006). The generalization of perceptual-motor intra-individual variability in young and old adults. *Journal of Gerontology: B Psychological Sciences*. 61, P304-310. URL: <http://psychogerontology.oxfordjournals.org/content/61/5/P304.full.pdf+html>

Sosnoff JJ, Deustch KM, & Newell KM (2007). Does muscular weakness account for younger children's enhanced force variability? *Developmental Psychobiology* 49, 399-405. DOI: 10.1002/dev.20209

Sosnoff JJ & Newell KM (2007). Are visual feedback delays responsible for aging-related increases in force variability? *Experimental Aging Research*, 33, 399-415. DOI:10.1080/03610730701525311

Sosnoff JJ, Broglio SP, Hillman CH & Ferrara MS. (2007). Concussion does not impact intra-individual response time variability. *Neuropsychology*, 21, 706-802. DOI: 10.1037/0894-4105.21.6.70

Heffernan KS, **Sosnoff JJ**, Jae SY, Gates GJ & Fernhall B. (2008). Acute resistance exercise increases QTc interval. *International Journal of Sports Medicine*, 29, 289-93. DOI: 10.1055/s-2007-965363

Sosnoff JJ, Broglio SP & Ferrara MS. (2008). Cognitive and motor function are associated following mild traumatic brain injury. *Experimental Brain Research*, 187, 563-571. DOI: 10.1007/s00221-008-1324-x

Heffernan KS, **Sosnoff JJ**, Fahs CA, Shinsako KK, Jae SY and Fernhall B. (2008). Fractal scaling of heart rate dynamics following resistance exercise training. *Journal of Applied Physiology*, 106, 113-118. DOI: 10.1152/jappphysiol.00150.2008

Sosnoff JJ & Newell KM (2008). Age-related loss of adaptability to fast time scales in motor variability. *Journal of Gerontology: B Psychological Sciences*. 63, P344-P352. URL: <http://psychogerontology.oxfordjournals.org/content/63/6/P344.full.pdf+html>

Broglio BP, **Sosnoff JJ**, Rosengren KS & McShane K (2009). A comparison of balance performance: computerized dynamic posturography and a random motion platform. *Archives of Physical Medicine and Rehabilitation*, 90, 145-150. DOI:10.1016/j.apmr.2008.06.025

Sosnoff JJ & Voudrie SJ (2009). Practice and the age-related loss of adaptability in sensorimotor performance. *Journal of Motor Behavior*, 41, 137-146. DOI: 10.3200/JMBR.41.2.137-146

Sosnoff JJ, Valentine AD, & Newell KM. (2009). The adaptive range of 1/f isometric force production. *Journal of Experimental Psychology: Human Performance and Perception* 35, 439-46. DOI: 10.1037/a0012731

Heffernan KS, **Sosnoff JJ**, Ofori E, Jae SY, Baynard T, Collier SR, Goulopoulou S, Figueroa A, Woods JA, Pitetti JH, Bo Fernhall (2009). Complexity of force output during static exercise in individuals with Down Syndrome. *Journal of Applied Physiology*, *106*, 1227-33. DOI: 10.1152/jappphysiol.90555.2008

Morrison S & **Sosnoff JJ**. (2009). Age-related changes in the adaptability of neuromuscular output. *Journal of Motor Behavior*, *41*, 274-283. DOI: 10.3200/JMBR.41.3.274-288

Broglio BP, **Sosnoff JJ**, Shin S, He X, Alcaraz C, Zimmerman J. (2009). Head impacts during high school football: A biomechanical assessment. *Journal of Athletic Training*, *44*, 242-249.
URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707068/?tool=pubmed>

Sosnoff JJ, Motl RW, Snook EM & Wynn D. (2009). Effect of a 4-week period of unloaded leg cycling exercise on spasticity in multiple sclerosis. *NeuroRehabilitation*, *24*, 327-31. DOI: 10.3233/NRE-2009-0486

Broglio SP, **Sosnoff JJ**, & Ferrara MS. (2009). The relationship of athlete reported concussion symptoms and objective measures of neurocognitive function and postural control. *Clinical Journal of Sports Medicine*. *19*, 377-82. DOI: 10.1097/JSM.0b013e3181b625fe

Sosnoff JJ, Samson JM, & Shin S. (2009). Aging and motor variability across timescales. *International Journal of Human Movement Science*. *3*, 133-147.

Sosnoff JJ, Voudrie SJ & Ebersole KE. (2010). The effect of knee joint angle on torque control. *Journal of Motor Behavior*. *42*, 5-10. DOI: 10.1080/00222890903269237

Hsiao-Wecksler ET, Polk JD, Rosengren KS, **Sosnoff JJ**, & Hong S. (2010). Development of new analytic techniques for quantifying symmetry in locomotion. *Symmetry*, *2*, 1135-1155.

Sosnoff JJ, Shin S & Motl RW (2010). Multiple sclerosis and postural control: The role of spasticity. *Archives of Physical Medicine and Rehabilitation*. *91*, 93-99. DOI:10.1016/j.apmr.2009.09.013

Ofori E, Samson JM, **Sosnoff JJ**. (2010). Age-related differences in force variability and visual display. *Experimental Brain Research*. *203*, 299-306. DOI: 10.1007/s00221-010-2229-z

Loucks TMJ, Ofori E, Grindrod CM, De Nil LF, **Sosnoff JJ** (2010). Auditory motor integration in oral and manual effectors. *Journal Motor Behavior*, *42*: 233-9. DOI: 10.1080/00222895.2010.492723

Sosnoff JJ & Motl R. (2010). Effect of acute unloaded arm versus leg cycling exercise on the soleus H-reflex in adults with multiple sclerosis. *Neuroscience Letters*, *479*, 233-239.
DOI:10.1016/j.neulet.2010.05.086

Sosnoff JJ, Goldman M, Motl RW (2010). Real life walking impairment in multiple sclerosis: preliminary comparison of four methods for processing accelerometry data. *Multiple Sclerosis*, *16*, 868-877. DOI: 10.1177/1352458510373111

- Morrison S & **Sosnoff JJ**. (2010). The impact of localized fatigue on contralateral tremor and muscle activity is exacerbated by standing posture. *Journal of Electromyography and Kinesiology*, 20, 1211-1218. DOI:10.1016/j.jelekin.2010.07.002
- Broglio SP, Schnebel B, **Sosnoff JJ**, Shin S, Feng X, He X, Zimmerman J. (2010). The biomechanical properties of concussions in high school football. *Medicine and Science in Sport and Exercise*, 42, 2064-2071. DOI: 10.1249/MSS.0b013e3181dd9156
- Motl RW, **Sosnoff JJ**, Dlugonski D, Suh Y & Goldman M. (2010). Does a waist-worn accelerometer capture intra- and inter-person variation in walking behavior among persons with multiple sclerosis? *Medical Engineering & Physics*, 32, 1224-28. DOI:10.1016/j.medengphy.2010.08.015
- Sosnoff JJ**, Broglio SP, Shin S, & Ferrara MS (2011). Previous mild traumatic brain injury and postural control dynamics. *Journal of Athletic Training*, 46, 85-91. DOI: 10.4085/1062-6050-46.1.85
- Martini DN, Sabin MJ, DePesa SA, Leal EA, Negrete TN, **Sosnoff JJ**, Broglio SP. (2011). The chronic effects of concussion on gait. *Archives of Physical Medicine and Rehabilitation*, 92, 585-9. DOI:10.1016/j.apmr.2010.11.029
- Sosnoff JJ**, Weikert M, Dlugonski D, Smith DC, Motl RW. (2011). Quantifying gait impairment in multiple sclerosis using GAITRite™ technology. *Gait & Posture*, 34, 145-147. DOI:10.1016/j.gaitpost.2011.03.020
- Sosnoff JJ**, Jae SY, Heffernan KS, Fernhall B. (2011). Cardioballistic impulse and fluctuations in isometric force output. *Motor Control*, 15, 221-231. URL: http://journals.humankinetics.com/AcuCustom/SiteName/Documents/DocumentItem/04_Sosnoff_MC_2009_51.pdf
- Sosnoff JJ**, Gappmeier E, Frame A & Motl RW. (2011). Spasticity, mobility and balance in persons with MS. *Journal of Neurological Physical Therapy*. 35, 129-132. doi: 10.1097/NPT.0b013e31822a8c40
- Sosnoff JJ** & Newell KM. (2011). Aging and motor variability: A test of the neural noise hypothesis. *Experimental Aging Research*. 37: 377-397. <http://dx.doi.org/10.1080/0361073X.2011.590754>
- Shin S, Motl RW, **Sosnoff JJ**. (2011). Multiple sclerosis and postural control: A test of the rambling and trembling hypothesis. *Motor Control*, 15: 568-579. http://journals.humankinetics.com/AcuCustom/SiteName/Documents/DocumentItem/08_Shin_MC_20100042.pdf
- Sosnoff JJ**, Socie MJ, Boes MK, Sandroff BM, Pula JH, Suh Y, Weikert M, Balantrapu S, Morrison S, & Motl RW. (2011). Mobility, balance and falls in persons with multiple sclerosis. *Plos One*. 6(11): e28021. doi:10.1371/journal.pone.0028021
- Sosnoff JJ**, Boes MK, Sandroff BM, Socie MJ, Pula JH & Motl RW. (2011). Walking and thinking in persons with multiple sclerosis who vary in disability. *Archives of Physical Medicine and Rehabilitation*, 92: 2028-33.

Broglio SP, Eckner JT, Martini D, **Sosnoff JJ**, Kutcher J, Randolph C. (2011). Cumulative head impact burden in high school football. *Journal of Neurotrauma*. 28, 2069-78. doi:10.1089/neu.2011.1825

Motl RW, Weikert M, Suh Y, **Sosnoff JJ**, Pula J, Soaz C, Schimpl M, Lederer C, Daumer M. (2012). Accuracy of the actibelt(®) accelerometer for measuring walking speed in a controlled environment among persons with multiple sclerosis. *Gait Posture*. 35, 192-196. doi:10.1016/j.gaitpost.2011.09.005

Ofori E, Loucks TMJ, **Sosnoff JJ**. (2012). Visuomotor and audiomotor processing in continuous force production of oral and manual effectors. *Journal of Motor Behavior*, 44, 87-96.

Wessels KK, Broglio SP, **Sosnoff JJ**. (2012). Concussions in wheelchair basketball. *Archives of Physical Medicine and Rehabilitation*, 93: 275-78.

Motl RW, Weikert M, Dlugonski D, Smith DC, **Sosnoff JJ**. (2012). Combined exercise training can improve walking mobility in Multiple Sclerosis: Results of a pilot study. *Journal of Neurological Physical Therapy*, 36, 32-7.

Motl RW, Suh Y, Balantrapu S, Sandroff BM, **Sosnoff JJ**, Pula JH, Goldman M and Fernhall B. (2012). Evidence for the different physiological significance of the 6MW and the 2MW tests in MS. *BMC Neurology*. 12, 6-12. doi:10.1186/1471-2377-12-6

Boes MK, **Sosnoff JJ**, Sandroff BM, Michael J. Socie, Pula JH & Motl RW (2012). Postural control in Multiple Sclerosis: Effects of disability status and dual task. *Journal of the Neurological Sciences*. 315: 44-8. DOI: 10.1016/j.jns.2011.12.006

Sosnoff JJ, Sandroff BM & Motl RW. (2012). Quantifying gait abnormalities in persons with multiple sclerosis with minimal disability. *Gait Posture*. 36: 154-156.

Motl RW, Sandroff BM & **Sosnoff JJ**. (2012). Commercially available accelerometer as an ecological valid measure of ambulation in persons with multiple sclerosis. *Expert Reviews Neurother*, 12(9), xx.

Sosnoff JJ & Motl RW. (2012). Management of spasticity in multiple sclerosis: The role of exercise. *Current Medical Literature Review – Multiple Sclerosis*. (invited) 4(2), 29-36.

Motl RW, Sandroff BM, Yoojin S, **Sosnoff JJ**. (2012). Energy cost of walking and its association with gait parameters, daily activity, and fatigue in persons with mild Multiple Sclerosis. *Neurorehabilitation and Neural Repair*. 26(8):1015-21.

Shin S, Valentine RJ, Evans EM, **Sosnoff JJ**. (2012). Lower extremity muscle quality and gait variability in older adults. *Age & Ageing*. 41(5):595-9.

Sosnoff JJ, Sandroff BM, Pula JH, Morrison SM, Motl RW (2012). Falls and physical activity in persons with MS. *Multiple Sclerosis International*. 2012: 315620.

Loucks TM, Ofori E, **Sosnoff JJ**. (2012). Force control under auditory feedback: effector differences and audiomotor memory. *Percept Mot Skills*. 114(3):915-35.

Balantrapu S, Sandroff BM, **Sosnoff JJ**, Motl RW. (2012). Perceived impact of spasticity is associated with spatial and temporal parameters of gait in multiple sclerosis. *ISRN Neurol.*2012:675431.

Morrison S, **Sosnoff JJ**, Sandroff BM, Pula JH, Motl RW. (2013). The dynamics of finger tremor in multiple sclerosis is affected by whole body position. *Journal of the Neurological Sciences.* 324(1-2), 84-89. DOI: [10.1016/j.jns.2012.10.007](https://doi.org/10.1016/j.jns.2012.10.007)

Motl RW, Sandroff BM, **Sosnoff JJ**. (2012). Commercially available accelerometry as an ecologically valid measure of ambulation in persons with multiple sclerosis. *Experts in Neurotherapeutics.* 12(9): 1079-1088.

Sosnoff JJ, Socie MJ, Boes MK, Sandroff BM & Motl RW. (2012). Does a waist worn Actigraph™ accelerometer quantify community ambulation in persons with multiple sclerosis. *Journal of Rehabilitation Research and Development*, 49, 1405-1410.

Daigle SC, Sosnoff JJ, Hsiao-Weckler ET. (2012). An evaluation of an automatic gear-shifting system for manual wheelchairs. *Journal of Medical Devices*, 6 (1).

Shin S, Chung HR, Kistler BM, Fitschen P, Wilund KR & **Sosnoff JJ**. (2013). Walking and talking in hemodialysis patients. *Archives of Physical Medicine and Rehabilitation.* 94, 127-131.

Morrison S, Sosnoff JJ, Heffernan KS, Jae SY, and Fernhall B. (2013). Aging, hypertension and physiological tremor: the contribution of the cardioballistic impulse to tremorgenesis in older adults. *Journal of Neurological Sciences.* 326, 68-74. doi:pii: S0022-510X(13)00018-X. [10.1016/j.jns.2013.01.016](https://doi.org/10.1016/j.jns.2013.01.016)

Socie MJ & **Sosnoff JJ**. (2013). Gait variability in multiple sclerosis. *Multiple Sclerosis International.*

Ofori E, **Sosnoff JJ**, Carlton LG. (in press). The relation between discrete and continuous force variability. *Research Quarterly for Exercise and Sport.*

Ward, A. M., Loucks, T. M., Ofori, E. & **Sosnoff JJ**. (in press). A direct comparison of short-term audiomotor and visuomotor memory. *Motor Control.*

Wessels KK, Brown JL, Ebersole KT, Sosnoff JJ. (in press). Gender, shoulder pain and range of motion in manual wheelchair users. *Journal of Rehabilitation Research and Development.*

Pilutti LA, Dlugonski D, Sandroff BM, Suh Y, Pula JH, **Sosnoff JJ**, Motl RW. (in press). Further validation of Multiple Sclerosis Walking Scale-12 scores based on spatiotemporal gait parameters. *Archives of Physical Medicine and Rehabilitation.* [10.1016/j.apmr.2012.08.214](https://doi.org/10.1016/j.apmr.2012.08.214)

Motl RW, Pilutti L, Sandroff BM, Dlugonski D, **Sosnoff JJ**, Pula JH. (in press). Accelerometry as a measure of walking behavior in multiple sclerosis. *Acta Neurologica Scandinavica.* doi: [10.1111/ane.12036](https://doi.org/10.1111/ane.12036).

Socie MJ, Sandroff BM, Pula JH, Motl RW & **Sosnoff JJ**. (in press). Gait variability and disability in multiple sclerosis. *Gait Posture.* [10.1016/j.gaitpost.2012.10.012](https://doi.org/10.1016/j.gaitpost.2012.10.012)

Socie MJ, Sandroff BM, Pula JH, Hsiao-Weckler ET, Motl RW & Sosnoff JJ. (in press). Footfall placement variability and falls in multiple sclerosis. *Annals of Biomedical Engineering* (invited). DOI: 10.1007/s10439-012-0685-2.

Shin S & **Sosnoff JJ**. (in press). Spinal cord injury and time to instability in seated posture. *Archives of Physical Medicine and Rehabilitation*.

Sosnoff JJ, Balantrapu S, Pilutti LA, Sandroff BM, Morrison S, & Motl RW. (in press). Cognitive processing speed is related to fall frequency in older adults with multiple sclerosis. *Archives of Physical Medicine and Rehabilitation*.

Sandroff BM, **Sosnoff JJ**, Motl RW. (in press). Physical fitness, walking performance, and gait in multiple sclerosis. *Journal of Neurological Sciences*.

Sosnoff JJ, Socie MJ, Sandroff BM, Balantrapu S, Suh Y, Pula JH, & Motl RW. (in press). Mobility and cognitive correlates of dual task cost of walking in persons with multiple sclerosis. *Disability & Rehabilitation*.

Bronson-Lowe, C. Loucks TMJ, Ofori EO, **Sosnoff JJ**. (in press). Aging effects on sensorimotor integration: A comparison of effector systems and feedback modalities. *Journal of Motor Behavior*.

Motl RW, Fernhall B, Sosnoff JJ, McAuley E. (in press). Rationale and design of a randomized controlled, clinical trial investigating a comprehensive exercise stimulus for improving mobility disability outcomes in persons with multiple sclerosis. *Contemporary Clinical Trials*

Under review:

Shin S & **Sosnoff JJ** (under review). Spinal cord injury and seated postural control: A test of the rambling and trembling hypothesis. *Human Movement Science*.

Ofori E & **Sosnoff JJ**. (under review). Initial peak force performance and continuous force production. *Human Movement Science*.

Balantrapu S, **Sosnoff JJ**, Pula JH, Weikert M, Sandroff BM, & Motl RW (under review). Spasticity of the legs and its association with measures of ambulation in multiple sclerosis. *PTI*

Socie MJ, Boes MK, Motl RW, & **Sosnoff JJ**. (under review). Monitoring spatiotemporal gait parameters during the 6-minute walk in people with multiple sclerosis. *JRRD*

Holtrop JL, Loucks TMJ, **Sosnoff JJ**, Sutton BP (under review). Age-related demyelination in motor pathways relates to reductions in fine motor control.

Shin S, Chung HR, Kistler BM, Fitschen P, Wilund KR & **Sosnoff JJ** (under review). Gait in hemodialysis patients.

Coote S, Finlayson MF, **Sosnoff JJ**. (under review). Mobility limitations and falls in persons with MS. *Archives of Physical Medicine and Review*.

Goldman MD, Motl RW, Scagnelli J, Pula JH, Sosnoff JJ & Cadavid. (under review). Timed-25 Foot Walk & the Real World: Identification and Validation of Clinically Meaningful T25FW Performance Benchmarks in Multiple Sclerosis. *Neurology*.

Sosnoff JJ, Finlayson M, McAuley E, Morrison S & Motl RW. (under review). Home based exercise program and fall risk reduction in older adults with MS. *PlosOne*.

Chapters

Newell KM, Deutsch KM, **Sosnoff JJ**, & Mayer-Kress G. (2005). Motor output variability as noise: A default and erroneous proposition? In K. Davids, S. Bennet & K. Newell (Eds.), *Variability in the Movement System: a Multi-Disciplinary Perspective* (p 3-22). Champaign, IL: Human Kinetics.

Hong SL, **Sosnoff JJ**, & Newell KM. (2005). Complexity and stability in isometric force production. In H. Heft & L. Marsh (Eds.), *Studies in Perception and Action VIII*. Lawrence Erlbaum Assoc, Inc.

Newell KM, Vaillancourt DE, & **Sosnoff JJ**. (2006). Aging, complexity and motor performance: healthy and disease states. In J.E. Birren & K.W. Schaie (Eds.), *Handbook of the psychology of aging (6th Ed.)* (p 163-182). Amsterdam: Elsevier.

INVITED PRESENTATIONS

Sosnoff JJ. (November, 2006). "Aging, force control and muscle weakness". Building Bridges 2006: joint meeting of Canadian Society for Exercise Physiology and Canadian Society for Psychomotor Learning and Sports Psychology, Halifax, NS, Canada. (Invited Presenter).

Sosnoff, JJ, (October, 2007). "Do sensorimotor deficits in advanced age result from a loss of complexity or loss of adaptability?" The University of Illinois Urbana-Champaign, College of Engineering, Bioengineering Interest Group (BIG) Seminar.

Sosnoff JJ, (April, 2009). "Aging and motor variability: Underlying mechanisms". University of Nebraska Medical Center, Omaha, NE.

Sosnoff JJ (August 2009). "Aging, Motor Variability and Muscular Weakness". International Sport Science Congress, Hanyang University, Seoul, Korea.

Sosnoff JJ (August 2009). "Aging, Sensorimotor Declines and Loss of Adaptability". Seoul National University, Seoul, Korea

Sosnoff JJ (December 2010). Breaking the Cycle: Determining the Effects and Management of Spasticity in Multiple Sclerosis. Center for Health, Aging and Disability and Health, Wellness Research Initiative Symposium: Redefining Disability. University of Illinois at Urbana-Champaign.

Sosnoff JJ (February 2012). Falls and Multiple Sclerosis. Dean Speaker Series, College of Health Sciences. Old Dominion University, Norfolk, VA.

Conference Presentations

Sosnoff JJ, Vaillancourt DE, Larsson L and Newell KM. (June 2002). Rhythmical force production and spectral analysis of intramuscular EMG and motor unit discharge patterns. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Baltimore, MD, (Presenter).

Lai S, **Sosnoff JJ**, Meyer-Kress G & Newell K. (June 2002). Application of information technology. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Baltimore, MD.

Sosnoff JJ, Vaillancourt DE, Larsson L and Newell KM. (Nov 2002). Rhythmical force production and spectral analysis of intramuscular EMG and motor unit discharge patterns. Society for Neuroscience, Orlando, FL, (Presenter).

Sosnoff JJ, Vaillancourt DE, and Newell KM. (Nov 2002). Aging and the frequency structure of intramuscular EMG. Gerontological Society of America, Boston, MA, (Presenter).

Lai S, Meyer-Kress G, **Sosnoff JJ** & Newell KM. (June 2003). Examination of entropy algorithm's in the analysis of discrete aiming movements. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Savannah, GA.

Sosnoff JJ & Newell KM. (June 2003). Intermittent control of continuous isometric force output across sub-maximal force levels. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Savannah, GA. (Presenter).

Sosnoff JJ, Vaillancourt DE & Newell KM (Nov 2003). The effects of aging on the complexity of motor output: A multi-scale entropy analysis. Dynamic Neuroscience XI: Neuronal Variability and Noise, New Orleans, LA. (Presenter).

Sosnoff JJ & Newell KM. (Nov 2003). Intermittency in the control of rhythmic force production. Society for Neuroscience, New Orleans, LA. (Presenter).

Sosnoff JJ, Jordan K & Newell KM. (June 2004). Control of force output as a function of grip configuration, force magnitude and visual intermittency. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Vancouver, Canada.

Sosnoff, JJ & Newell, KM. (Oct 2004). Visual information scale, aging and the control of isometric force output. Society for Neuroscience, San Diego, CA. (Presenter).

Sosnoff JJ, Carter RM, & Newell KM. (June 2005). Cognitive constraints and the stability of postural control in older adults. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Tampa, FL. (Presenter).

Vallantine AD, **Sosnoff JJ** & Newell KM. (June 2005). The invariance of force irregularity at low force levels. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Tampa, FL.

Sosnoff JJ & Newell KM. (June 2005). Bringing down the noise: An empirical test of the neural noise hypothesis. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Tampa, FL. (Presenter).

Valantine AD, **Sosnoff JJ**, & Newell, KM. (August 2005). The control of force production at low force levels. Progress in Motor Control V, University Park, PA.

Sosnoff JJ & Newell KM. (August 2005). Aging, visual motor processing and deficits in isometric force output. Progress in Motor Control V, University Park, PA.

Sosnoff JJ, Valantine AD, & Newell KM. (Nov 2005). Force magnitude does not influence force irregularity at low force levels. Society of Neuroscience, Washington, DC. (Presenter).

Sosnoff JJ & Newell KM. (May 2006). Aging: Loss of Complexity or Loss of Adaptability. Understanding Complex Systems, Urbana, IL. (Presenter).

Sosnoff JJ & Newell KM (June 2006). Aging and intra-individual variability in motor performance North American Society for Psychology of Sport and Physical Activity Annual Meeting, Denver, CO. (Presenter).

Sosnoff JJ & Newell KM (June 2006). Force variability, aging and muscle weakness. American College of Sports Medicine, Denver, CO. (Presenter).

Sosnoff JJ, Valantine AD, & Newell KM. (August 2006). The adaptive range of fractal force production. Society for Chaos Theory in Psychology and Life Sciences. Baltimore, MD.

Sosnoff JJ, Jang J & Ofori, E. (October 2006). The neuromuscular correlates of the structure of force variability. Society of Neuroscience, Atlanta, GA. (Presenter).

Contakos J, **Sosnoff JJ**, McAuley E, Rosengren K. (June 2007) Changes in postural dynamics as a function of task constraints in elderly women, North American Society for Psychology of Sport and Physical Activity Annual Meeting, San Diego, CA.

Sosnoff JJ, Valantine & Newell K. (June 2007). Aging, loss of adaptability or loss of complexity. North American Society for Psychology of Sport and Physical Activity Annual Meeting, San Diego, CA. (Presenter).

Ofori E & **Sosnoff JJ**. (June 2007). Does discrete force production impact continuous force production. North American Society for Psychology of Sport and Physical Activity Annual Meeting, San Diego, CA.

Sosnoff JJ, Voudrie S, Jae SY, Heffernan K & Fernhall B. (June 2007). Cardiobalistic impulse and fluctuations in isometric force output. North American Society for Psychology of Sport and Physical Activity Annual Meeting, San Diego, CA.

Sosnoff JJ & Samson J. (June 2007). Aging, physical activity and variability of cognitive processing. North American Society for Psychology of Sport and Physical Activity Annual Meeting, San Diego, CA.

Sosnoff JJ, Voudrie S, Jae SY, Heffernan K & Fernhall B. (August 2007). Are age-related differences in tremor related to cardioballistics? Progress in Motor Control VI, Santos, Brazil. (Presenter).

Shin S, Voudrie SJ, Samson JM, Snook EM, **Sosnoff JJ**, Motl RW. (June 2008). Postural control in individuals with multiple sclerosis: A dual task approach. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Niagara Falls, Canada.

Ofori E, Heffernan KS, **Sosnoff JJ**, Baynard T, Woods JA, & Fernhall B. (June 2008). Down Syndrome and force variability. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Niagara Falls, Canada.

Ofori E, **Sosnoff JJ** & Carlton LG. (June 2008). The relationship between discrete and continuous force variability. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Niagara Falls, Canada.

Samson JM, **Sosnoff JJ**, & Hillman CH. (June 2008). Physical activity and intraindividual cognitive variability in children. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Niagara Falls, Canada.

Voudrie SJ, Ebersole KT, & **Sosnoff JJ**. (June 2008). The effects of ACL surgery and rehabilitation on torque control. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Niagara Falls, Canada. (Presenter)

Sosnoff JJ, Voudrie SJ, & Samson JM. (June 2008). Coupling between cognitive and motor variability in young and old adults. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Niagara Falls, Canada. (Presenter)

Ofori E, Heffernan KS, **Sosnoff JJ**, Baynard T, Gouloupoulo S, Collier SR, Figueroa A & Fernhall B. (June 2008). Muscular weakness and force variability in individuals with Down Syndrome. American College of Sports Medicine Annual Meeting, Indianapolis, IN.

Samson JM, **Sosnoff JJ**, Buck SM, Pontifex MB, Themason JR & Hillman CH. (June 2008). Aerobic exercise training and intra-individual cognitive variability in older adults. American College of Sports Medicine Annual Meeting, Indianapolis, IN.

Heffernan KS, Fahs CA, Shinsako KK, **Sosnoff JJ**, Jae SY, & Fernhall Bo. (June 2008). Fractal properties of heart rate following resistance training: Chaotic times call for chaotic measures. American College of Sports Medicine Annual Meeting, Indianapolis, IN.

Voudrie SJ, Ebersole KT, & **Sosnoff JJ**. (June 2008). Joint angle and torque variability in the Quadriceps. American College of Sports Medicine Annual Meeting, Indianapolis, IN.

Morrison S & **Sosnoff JJ**. (June 2008). Aging-related changes in the adaptability of neuromuscular output. American College of Sports Medicine Annual Meeting, Indianapolis, IN. (Presenter).

Sosnoff JJ, Broglio SP, & Ferrara MS. (June 2008). Coupling between cognitive and motor function following mild traumatic brain injury. American College of Sports Medicine Annual Meeting, Indianapolis, IN. (Presenter).

Sosnoff JJ & Newell KM. (Nov 2008). Intentional fractal movement. Psychonomic Society Annual Meeting. Chicago, IL. (Presenter).

Sosnoff JJ, Samson JM, Voudrie SJ (Nov 2008). Practice and the age-related loss of complexity in perceptual motor output. Gerontological Society of America Annual Meeting, Baltimore, MD.

Broglio SP, **Sosnoff JJ**, Shin S, Ferrara MS. (May 2009). Long term changes in balance following concussion, American College of Sports Medicine, Seattle, WA.

Shin S, **Sosnoff JJ**, Broglio SP. (May 2009) Reducing ankle movement has no effect on postural control dynamics, American College of Sports Medicine, Seattle, WA.

Sosnoff JJ, Wessels K, Brown JL, Ebersole KE. (May 2009). Shoulder pain in manual wheelchair athletes: The role of gender. American College of Sports Medicine, Seattle, WA.

Sosnoff JJ, Culp S, Contakos J. (June 2009). Temporal dynamics of wheelchair propulsion. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Austin, TX. (Presenter).

Sosnoff JJ & Samson JM. (June 2009). Age-related motor variability across time scales. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Austin, TX. (Presenter).

Ofori E, Samson JM & **Sosnoff JJ**. (June 2009). Visual display and age-related differences in force production. North American Society for Psychology of Sport and Physical Activity Annual Meeting, Austin, TX.

Broglio SP & **Sosnoff JJ**. (June 2009). The relationship between cognitive and postural control performance with self-report concussion symptoms, National Athletic Trainers' Association Annual Meeting and Clinical Symposium, San Antonio, TX.

Shin SH, Valentine R, Evans E, & **Sosnoff JJ** (August 2009). Lower extremity muscle quality and gait variability in older adults. American Society of Biomechanics Annual Meeting, State College, PA.

Sosnoff JJ, Ofori E, Knapik D, Grindrod CM, De Nil LF, Ambrose NG, Carlton LG, & Loucks T. (Oct 2009). Auditory Motor Memory. Society for Neuroscience Annual Meeting, Chicago, IL.

Grindrod CM, Loucks T, & **Sosnoff JJ**. (Oct 2009). Intraindividual response time variability during on-line sentence comprehension in left- and right-brain-damaged patients. Society for Neuroscience Annual Meeting, Chicago, IL.

Sosnoff JJ, Rampurawala ZM, Daigle SC, DiBerardino LA, Park K, Hsiao-Wecksler ET. (2010) Complexity and variability in manual wheelchair propulsion. 16th Annual US National Congress on Theoretical and Applied Mechanics. State College, PA.

Wessels K, **Sosnoff JJ**, , Butler JM, Serio S (June 2010). Force control in manual wheelchair users. American College of Sports Medicine. Baltimore, MD.

Sosnoff JJ & Motl RW. Effect of arm vs. leg cycling exercise on spasticity of the legs in multiple sclerosis. (June 2010). Americas Committee for the Treatment and Research in Multiple Sclerosis (ACTRIMS). San Antonio, Texas.

Sosnoff JJ, Gappmeir E, Frame A & Motl RW. (June 2010). Spasticity, mobility and balance in persons with Multiple Sclerosis. Consortium for Multiple Sclerosis Centers (CMSC). San Antonio, Texas.

Sosnoff JJ, Wessels K, Serio S & Butler JM (June 2010). Sub-maximal force control as a function of shoulder pain in manual wheelchair users. North American Society for Psychology of Sport and Physical Activity Annual Meeting. Tucson, Az.

Shin S & **Sosnoff JJ**. (June 2010). Nonlinear time series analyses of seated postural control in young adults with spinal cord injury. North American Society for Psychology of Sport and Physical Activity Annual Meeting. Tucson, Az.

Ofori E, Loucks TM, Knapik DP, Carlton LG & **Sosnoff JJ**. (June 2010). Auditory and visual feedback in oral and manual force control. North American Society for Psychology of Sport and Physical Activity Annual Meeting. Tucson, Az.

Loucks TM, Ofori E, Grindrod CM, De Nil L & **Sosnoff JJ**. (June 2010). Auditory motor integration in oral and manual effectors. North American Society for Psychology of Sport and Physical Activity Annual Meeting. Tucson, Az.

Sosnoff, J. J., Boes, M. K., Sandroff, B. M., Pula, J. H., & Motl, R. W. (June 2011). Walking and thinking in people with multiple sclerosis [Abstract]. *International Journal of MS Care*, 13, 3.

Sosnoff, J. J., Socie, M. J., Boes, M. K., Sandroff, B. M., Suh, Y., & Motl, R. W. (2011). Ambulatory mobility monitoring in people with multiple sclerosis [Abstract]. *International Journal of MS Care*, 13, 69-70.

Socie, M.J., Boes, M. K., Motl, R. W., & **Sosnoff, J. J.**, (2011). Changes in spatiotemporal parameters of gait during the 6-minute walk in people with multiple sclerosis [Abstract]. *International Journal of MS Care*, 13, 71.

Balantrapu, S., Sandroff, B. M., **Sosnoff, J. J.**, & Motl, R. W. (2011). Self- reported impact of spasticity is associated with spatiotemporal parameters of gait [Abstract]. *International Journal of MS Care*, 13, 81-82.

Balantrapu, S., **Sosnoff, J. J.**, Pula, J. H., Weikert, M. L., Suh, Y., Boes, M. K., Sandroff, B. M., & Motl, R. W. (2011). Spasticity of the legs and its effect on measures of ambulation and gait [Abstract]. *International Journal of MS Care*, 13, 82.

Boes, M. K., **Sosnoff, J. J.**, Pula, J. H., Sandroff, B. M., & Motl, R. M. (2011). Standing, walking, and thinking in multiple sclerosis [Abstract]. *International Journal of MS Care*, 13, 67-68.

Goldman, M., Suh, Y., Weikert, M. L., Pula, J. H., **Sosnoff, J. J.**, & Motl, R. W. (2011). Confirmation of 6-minute walk test utility in multiple sclerosis subjects [Abstract]. *International Journal of MS Care*, 13, 6.

Sosnoff, J. J., Shin, S., Stergiou, N., Huisinga, J., van Emmerick, R.E.A., & Busa, M.A. (2011). Postural and gait dysfunction in Multiple Sclerosis: Novel insights from motor control [Abstract]. *Journal of Sport and Exercise Psychology*, 33, S21.

Sosnoff, J. J., Shin, S., & Motl, R.W. (2011). A test of the rambling trembling hypothesis in Multiple Sclerosis. [Abstract]. *Journal of Sport and Exercise Psychology*, 33, S22.

Ofori, E. **Sosnoff, J. J.**, Morrison, S., Boes, M.K., Pula, J.H., & Motl, R.W. (2011). Tremor and multiple sclerosis. [Abstract]. *Journal of Sport and Exercise Psychology*, 33, S95.

Shin, S., Motl, R.W. & **Sosnoff, J. J.** (2011). Spasticity and postural asymmetry in persons with multiple sclerosis. [Abstract]. *Journal of Sport and Exercise Psychology*, 33, S22.

Sosnoff JJ, Sandroff BM, Pilutti LA, Pula JH, Morrison SM & Motl RW. (Oct 2011) Falls and activity curtailment in persons with multiple sclerosis. First International Symposium on Gait and Balance in Multiple Sclerosis. Portland, OR.

Sosnoff, J. J., Sandroff, B. M, Socie MJ, Balantrapu S, Suh Y, Pula, J. H., & Motl, R. M. (2012). Predictors of dual task cost in persons with MS. *International Journal of MS Care*, 14, 1.

Balantrapu S, Suh Y, Sandroff BM, Pilutti LA, Dlugonski D, **Sosnoff, JJ**, Pula, JH, Motl RM. (2012). Total macular volume and its association with ambulatory parameters in persons with MS. *International Journal of MS Care*, 14, 73.

Sandroff, B. M, Pilutti LA, Dlugonski D, Balantrapu S, Suh Y, Pula, J. H., **Sosnoff, J. J.**, & Motl, R. M. (2012). Two conditions of administering the 6-minute walk in persons with MS. *International Journal of MS Care*, 14, 77.

Sosnoff JJ, Socie MJ, Sandroff BM, Pilutti LA, Pula JH & Motl RW. Walking impairment and gait variability in multiple sclerosis. *International Journal of MS Care*, 14, 82

Pilutti LA, Sandroff, BM, Dlugonski D, Balantrapu S, Suh Y, Pula, J. H., **Sosnoff, J. J.**, & Motl, R. M. (2012). Multiple Sclerosis Walking Scale-12 Scores and gait parameters. *International Journal of MS Care*, 14, 87.

Boes MK, Motl RM & **Sosnoff, JJ.** (2012). Dual task, mobility and fall risk in persons with multiple sclerosis. *International Journal of MS Care*, 14, 89.

Balantrapu S, Socie MJ, Sandroff BM, Pilutti LA, Pula JH & **Sosnoff JJ**, Motl RW. Validation of the six spot step test as a measure of ambulation in multiple sclerosis. *International Journal of MS Care*, 14, 91.

Coote S, Finlayson M, **Sosnoff JJ** (Oct 2012). Mobility status and falls in persons with multiple sclerosis. Second International Symposium on Gait and Balance in Multiple Sclerosis. Portland, OR.

Supervision of Student Research

McNair Scholars Program

I have served as or am currently serving Director of Research for

Jeremy Butler, Force control in manual wheelchair users, June-August 2009

Higgins Durand, Aging and oral and manual motor variability, June-August 2010

Cherita Ousley, Spasticity and mobility in persons with multiple Sclerosis, June-August 2011.

Matthew Weasley, Variability of gait kinematics in persons with multiple sclerosis, August 2011-May 2012.

Undergraduate Senior Thesis Research

I have served as or am currently serving Director of Research for

Jared Kennedy, Age-related differences in force variability, graduated May 2008

James Scholar Project

I have served as or am currently serving Director of Research for

Anna Wetzel, Predictors of dual-task cost in persons with MS

Justine Meyers, Fall risk in persons with multiple sclerosis

Master Thesis Research

I have served as or am currently serving Director of Research for:

Stefani Voudrie, Joint angle and torque control in the Quadriceps muscle group, graduated Dec 2008.

Karla Wessels, Shoulder Pain and Joint Laxity in Manual Wheelchair Users, graduated May 2009.

Jennifer Brown, Muscle Strength and Shoulder Pain in Manual Wheelchair Users, graduated May 2009.

Jean Samson, Aging and variability in thought and action, Kinesiology, graduated May 2010.

Morgan Boes, Postural control in multiple sclerosis: effects of disability and dual task, Bioengineering, graduated Dec 2011.

Zahid Rampurawala, Motor Variability in Wheelchair Propulsion, Kinesiology, graduated May 2011.

Scott Diagle, Intelliwheels: Design of CVT for manual Wheelchairs, Mechanical Engineering, graduated December 2011

Michael J. Socie, Gait variability in persons with Multiple Sclerosis, Mechanical Engineering, graduated May 2011

I have served or currently served as a MS committee member for:

Edward Ofori, Discrete and Continuous Force Control, graduated Dec 2008.

Brain Sandroff, Physical fitness, walking performance and gait in multiple sclerosis, May, 2012

Doctorate Thesis Research

I have served as or am currently serving Director of Research for:

Sunghoon Shin, Spinal Cord Injury and Seated Postural Control, Kinesiology, graduated August 2012.

Karla Wessels, Concussion incidence and assessment in wheelchair athletes, Kinesiology

I have served or currently served as a PhD committee member for:

Richard Doyle, Generalization of postural control, Kinesiology.

Jonas Contakos, Perception of Rotational Biological Motion, Kinesiology

HeenCheong Chon, Kinematics of stuttering, Speech and Hearing Sciences

Matthew Sabin, The introduction of the condition-modified star excursion balance test, Kinesiology and Community Health

Marco Boscolo, Optimization of adhesive athletic tape: A Taguchi method based study, Kinesiology and Community Health

Jong Il Lim, Visual search strategy and interception accuracy, Kinesiology and Community Health

Edward Ofori, Aging, sensory feedback and force control, Kinesiology and Community Health.

PROFESSIONAL SERVICES

Served on the following committees:

Department of Kinesiology and Community Health

Kinesiology PhD student required teaching (Spring 2008); *Kinesiology Education Policy Committee* (Fall '09-Spring 10); *Kinesiology Ad Hoc Committee on Course Fees* (Spring 2010;2011;2012;2013); *HHD search Committee – fall 2012; fall 2013*

College of Applied Health Sciences:

College of Applied Health Sciences Education Policy Committee (Fall '11-present; Co-Chair '13), *Experience AHS Planning Committee* (Fall '11-Spring '12).

CAMPUS

IRB – Biomedical

General Education Board – UIUC

Chancellor's Visioning Future Excellence Speaker Series, Steering Committee, (Spring '13)

Editorial Board:

ISRN Rehabilitation (Fall '11-present).

Journal of Motor Behavior (Spring '13-present)

Biomed Research International (Spring '13-present)

Professional Organizations:

Organized and moderated Symposium on Aging and Motor Control, North American Society for Psychology of Sport and Physical Activity (NASPSPA), June 2006 (Denver).

Moderated slide presentation focusing on Perception and Action, North American Society for Psychology of Sport and Physical Activity (NASPSPA), June 2008 (Niagra Falls, Canada).

Moderated slide presentation focusing on Timing, Coordination and Interdisciplinary Studies, North American Society for Psychology of Sport and Physical Activity (NASPSPA), June 2009 (Austin, TX).

Served on the Program Committee for the 2011 North American Society for Psychology of Sport and Physical Activity (NASPSPA), Burlington, VT.

Organized and moderated Symposium on Motor Control and Multiple Sclerosis, North American Society for Psychology of Sport and Physical Activity (NASPSPA), June 2011 (Burlington, VT).

Reviewing:

Have reviewed manuscripts for the following journals: *Annals of Biomedical Engineering*, *Archives of Physical Medicine & Rehabilitation*, *BMC Medical Methodology*, *Clinical Neurophysiology*, *Disability and Rehabilitation*, *European Journal of Applied Physiology*, *European Journal of Physical Medicine and Rehabilitation*, *European Journal of Neurology*, *Exercise and Sport Science Reviews*, *Experimental Brain Research*, *Human Movement Sciences*, *International Journal of Sports Psychology*, *International Journal of Sports Medicine*, *Journal of Advance Research*, *Journal of Applied Physiology*, *Journal of American Geriatric Society*, *Journal of Gerontology: Psychological Sciences*, *Journal of Motor Behavior*, *Journal of Neurological Sciences*, *Journal of Neurophysiology*, *Journal of Personality*, *Journal of Rehabilitation Research and Development*, *Motor Control*, *Muscle & Nerve*, *Neuroscience Letters* and *Physiological Measurement*.

Have reviewed the following texts: *Handbook of the Psychology of Aging* (2008), *Motor Control* (2010)

Have served as a grant reviewer for the Research Board at the University of Illinois at Urbana-Champaign.

Have served as a grant reviewer for the European Science Foundation's Motor Control and Perception Panel (Dec 2009).

Have served as a grant reviewer for:

- National Multiple Sclerosis Society pilot grant project (Spring 2011, Spring 2012).
- Ireland Health Research Board (Fall 2012).
- Multiple Sclerosis Australia (Summer 2012).
- Joint Projects 2012: University of Verona (Spring 2013).
- MS Society (United Kingdom; Spring '13)

Ad hoc reviewer for NIH study section: Sensorimotor Learning: ZRG1-IFCN-B-04M (Spring '13)

PROFESSIONAL MEMBERSHIP

Consortium for Multiple Sclerosis Centers

North American Society for Psychology of Sport and Physical Activity