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EDUCATION

Doctor of Philosophy Degree in Rehabilitation Science, 2006, University of Florida, Gainesville FL

Master of Arts Degree in Intercultural Studies, 1995, Columbia International University, Columbia, SC

Bachelor of Science Degree in Occupational Therapy, 1986, Elizabethtown College, Elizabethtown, PA

WORK HISTORY

- 2006 – Present North Florida/South Georgia Veterans Health System, Brain Rehabilitation Research Center, Gainesville, Florida, *Associate Investigator*. Research focus: Measurement of upper extremity motor impairment and function in individuals with stroke: using motion analysis, EMG and clinical scales.
- 2006 – Present University of Florida, College of Public Health and Health Professions, Department of Occupational Therapy, Gainesville, Florida; *Research Assistant Professor*. Teaching neurorehabilitation, kinesiology and OT theory courses. Research areas include refinement of existing clinical scales to measure upper extremity motor function.
- 2002 – 2006 University of Florida, College of Public Health and Health Professions, Departments of Occupational and Physical Therapy, Gainesville, Florida; *T32 Neuromuscular Plasticity Pre-Doctoral Fellow*. Research focus: recovery of upper extremity motor function after stroke and incomplete spinal cord injury.
- 1998 – 2006 Medical University of South Carolina, College of Health Professions, Department of Occupational Therapy, Charleston South Carolina; *Assistant Professor*, (1998 – 2004), *Adjunct*

Assistant Professor, (2004 – 2006). Developed and taught neurorehabilitation, occupational performance, and vision rehabilitation courses. Service included co-development of an upper extremity constraint movement therapy camp for children with hemiplegia, a summer camp for children with visual impairment, and program development for the Feldberg Center for Vision Rehabilitation at the Storm Eye Institute.

1994 – 1998 Healthsouth Rehabilitation Hospital, Columbia, South Carolina; *Senior Occupational Therapist and Neurorehabilitation Outpatient Team Leader (in/outpatient and day treatment adult and pediatric neurorehabilitation)*

1991 – 1994 Mediplex Rehabilitation Hospital, Bradenton, Florida; *Senior Occupational Therapist (inpatient adult and pediatric neurorehabilitation)*

1989 – 1991 Our Lady of Victory Hospital, Neurorehabilitation Unit, Buffalo, New York; *Senior Occupational Therapist (in/outpatient adult and pediatric neurorehabilitation)*

1986 – 1989 New Medico Neurologic Rehabilitation Center, Cortland, New York; *Staff Occupational Therapist (inpatient adult and pediatric neurorehabilitation)*

FUNDED GRANTS/CONTRACTS

Developing an Upper Extremity Motor Behavior Assessment Toolbox, Career Development Award 2, Principal Investigator - Brain Rehabilitation Research Center, Veterans Administration Rehabilitation Research and Development service, September 2008 - September 2011.

Measurement of Post-stroke Upper Extremity Motor Impairment and Function. Associate Investigator Award, Principal Investigator - Brain Rehabilitation Research Center, Veterans Administration Rehabilitation Research and Development service, September 2006 - September 2008.

Connecting Post-stroke Upper Extremity Impairment to Function. Principal Investigator - Northstar Neuroscience Corporation, August 2007 - August 2008.

Mechanisms Underlying and Interventions to Promote Neural Plasticity after Stroke and Incomplete Spinal Cord Injury (NIH T32-HD043730). Predoctoral Fellow - August 2003 - August 2006

Dissertation Research Travel Grant. Office of the Vice President, University of Florida, May 2006

Comparing Three Training Regimens to Improve Upper Extremity Motor Function after Stroke and Incomplete Spinal Cord Injury. Investigator - Florida Brain and Spinal Cord

Injury Rehabilitation and Training Fund (State of Florida Neurotrauma Project Allocation A-15), August 2003 - August 2006.

Center for Low Vision Treatment within the Charleston County Services for the Blind
Co-investigator - Charleston County Community Development Block Grant, Fiscal year 2000.

AWARDS

Research Travel Award, Neuromuscular Plasticity Symposium, University of Florida, 2008

Outstanding Doctoral Student Research, University of Florida, 2006, 2005, 2003

Developing Teacher Award, Medical University of South Carolina, 2001

Teaching Excellence Award Finalist, Medical University of South Carolina, 2001, 2000

REFEREED PUBLICATIONS

Woodbury, ML, Richards, LG., McGuirk, T, Davis, S., Senesac, CR., Howland, D., (2008) *Effect of trunk restraint combined with intensive task practice on post-stroke reach and function*, Neurorehabilitation Neural Repair (accepted – in press).

Woodbury, ML, Velozo, CA., Richards, LG., Duncan, PW., Lai, S-M, Studenski, S. (2008) *Longitudinal Stability of the Fugl-Meyer Upper Extremity item hierarchy*, Archives of Physical Medicine and Rehabilitation (accepted - in press).

Richards, LG., Senesac C., McGuirk, TE., Woodbury, ML., Howland, D., Davis, S., Patterson T., (2008) *Response to intensive motor therapy by individuals with ataxia from stroke*. Topics in Stroke Rehabilitation (in press for Summer 2008 edition).

Richards, LG., Senesac, CR., Davis, S, Woodbury ML, Nadeau SE. (2008) *Bilateral Arm Training with Rhythmic Auditory Cueing (BATRAC) in Chronic Stroke: Not Always Efficacious*, Neurorehabilitation and Neural Repair, 22(2):180-184.

Richards, LG., Stewart, KC., Woodbury, ML., Senesac, CR., Cauraugh, JH. (2008) *Movement-Dependent Stroke Recovery: A Systematic Review and Meta-Analysis of TMS and fMRI Evidence*, Neuropsychologia, 46(1):3-11.

Woodbury, ML, Velozo, CA., Richards, LG., Duncan, PW., Lai, S-M, Studenski, S. (2007) *Dimensionality and Construct Validity of the Fugl-Meyer Assessment of the Upper Extremity*, Archives of Physical Medicine and Rehabilitation, 88(6):715-732.

NON-REFEREED PUBLICATIONS

Woodbury ML. *Measuring post-stroke arm motor ability: measurement properties of the Fugl-Meyer Upper Extremity Assessment examined with an item response theory measurement framework* [Dissertation]. Gainesville: University of Florida; 2006.

Woodbury, ML, & Velozo, CA. (2005). *Potential for Outcomes to Influence Practice and Support Clinical Competence*. OT Practice, 10(10), 7-8.

PUBLISHED ABSTRACTS

McGuirk, TE., Woodbury, ML., Patten C. A Quantitative Kinematic and Kinetic Analysis of Stroke Function During Functional Tasks (October 2008) Journal of the American Society of Mechanical Engineering.

Woodbury, ML., Richards, LG., McGuirk, TE., Davis, SB., Senesac, C., Howland, D., Kautz, S. (2007 November) *Effect of intensive massed-practice with and without trunk restraint on post-stroke upper extremity reaching kinematics and functional recovery*. Program No. 623.15. 2007 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2007. Online

McGuirk, TE., Woodbury, ML., Kautz, S., Richards, LG. (2007 November) *A complete description of post-stroke upper extremity 3D kinematics in both proximal and distal joints: a new experimental protocol*. Program No. 623.16. 2007 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2007. Online

Richards, LG., Woodbury, ML., McGuirk, TE., Davis, SB., Patterson, T., Kautz, S. (2007 November) *Relationship of grasp and transport kinematics of a reaching-to-target task before and after functional task practice: a case study..* Program No. 623.17. 2007 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2007. Online

Giuffrida, C., Levy, C., Richards, L., Davis, S., Llanes, C., Woodbury, M., Arola, S., and Nadeau, S. (2006) *Impact of evidenced-based behavioral therapy and Botulinum Toxin Type A on hand function in patients with stroke*. Archives of Physical Medicine and Rehabilitation, 87(10), e24-e25.

Behrman, AL; Lawless, AR; Woodbury, ML; et al. (2003) *Recovery of walking after neurologic injury: From spinal cord injury to stroke*. Journal of Sport & Exercise Psychology, 25: s10-s10 Jun.

Morse, SE., & Woodbury, ML. (2000). *The effects of impaired vision on functional tests of reading and fine motor use of the hand*. The Association for Research in Vision and Ophthalmology Abstract Issue, 41/4, 474.

PROFESSIONAL PRESENTATIONS

Woodbury, ML., Velozo, CA., Richards, LG., Duncan, PW. (2008, April) *Translating Post-Stroke Upper Extremity Impairment to Function*. Paper presented at the American Occupational Therapy Association National Conference, Long Beach, CA.

Velozo, CA., Mallinson, TR., Woodbury, ML., Bateman, J. (2008, April) *What Has My Standardized Assessment Done for Me Lately?* Short-course Presented at the American Occupational Therapy Association National Conference, Long Beach, CA.

Woodbury, ML., Richards, LG., McGurik, TE., Davis, SB., Senesac, C., Howland, D., Kautz, S. (2008, April) *Can "Normal" Post-Stroke Reach be Retrained?* Poster presented at the American Occupational Therapy Association National Conference, Long Beach, CA.

Woodbury, ML., Velozo, CA. (2006, November), *Using Measurement to Support Clinical Competency*. Continuing education workshop presented at the University of Florida Occupational Therapy Clinical Educators Meeting, Gainesville FL.

Woodbury, ML., Velozo, CA., Richards, LG., Duncan, PW. (2006, May) *A Fugl-Meyer Upper Extremity Assessment Recovery Map to Inform the Stroke Rehabilitation Treatment Process*. Poster presented at the American Occupational Therapy Association National Conference, Charlotte, NC.

Woodbury, ML., Velozo, CA., Richards, LG., Duncan, PW. (2006, March), *A Fugl-Meyer "Recovery Map" to Inform the Treatment Planning Process*. Winning poster presented at the University of Florida College of Health Professions Student Research Day, Gainesville, FL.

Woodbury, ML., Velozo, CA., Richards, LG., Duncan, PW. (2005, December), *Examination of the Measurement Properties of the Fugl-Meyer Assessment of Upper Extremity Motor Function*. Poster presented at the NCMRR Medical Rehabilitation Research Training Workshop, Washington DC.

Woodbury, ML., Velozo, CA., Richards, LG., Duncan, PW. (2005, May) *Using the Rasch model to examine the theoretical basis of the Fugl-Meyer Upper Extremity Assessment*. Poster presented at the American Occupational Therapy Association National Conference, Long Beach, CA

Guiffrida, C., Levy, C., Richards, LG., Davis, S., Llanes, C., Woodbury, ML., Arola, S. (2005, May) *Impact of Botulinum Toxin (BTX-A) on hand function in stroke*. Poster presented at the American Occupational Therapy Association National Conference, Long Beach, CA

Woodbury, ML., Richards, LG., Vallabhanjosula, S., Davis, S., Knight, R., Senesac, C., Howland, D. (2005, April). *Can "normal" post-stroke upper extremity reach be retrained?* Winning poster presented at the University of Florida College of Health Professions Student Research Day, Gainesville, FL.

Lawless, AR., Davis, S., Phadke, C., Nair, P., Bowden, M., Woodbury, ML., Flynn, S., Hannold, E., Ko, M., Senesac, C., Behrman, A. (2004, February) *Locomotor training, progression, and outcomes after Incomplete Spinal Cord Injury*. Poster session presented at the American Physical Therapy Association Combined Sections Meeting, Nashville TN.

Phadke, C., Woodbury, ML., Light, K.E., Behrman, A.L. (2004, February) *Speed-dependent modulation of leg-to-arm interlimb reflex while walking on a treadmill*. Poster session presented at the American Physical Therapy Association Combined Sections Meeting, Nashville TN.

Woodbury, ML., Chou, YL., Phadke, C., Nair, P., Bowden, M., Davis, S., Behrman, AL., Flynn, SM., Kukulka, C. & Thompson, FJ., (2003, April). *H-Reflex modulation during body weight supported treadmill walking in subjects with incomplete spinal cord injury: immediate response to treadmill speed*. Winning poster presented at the University of Florida College of Health Professions Student Research Day, Gainesville, FL.

Giles, AK., Woodbury, ML., (2002, October). *Effectiveness of an injury prevention program among elementary-school children*. Poster session presented at the South Carolina Occupational Therapy Association Annual Conference, Columbia, SC.

Woodbury, ML., Ridlehoover, E., et al (2002, May). *The Occupational Therapist and Architect Partnership: An Emerging Practice Area*. Poster session presented at the American Occupational Therapy Association National Conference, Miami Beach FL.

Morse, S.E., Woodbury, ML. (2000, May). *The effects of impaired vision on functional tests of reading and fine motor use of the hand*. Poster session presented at the Association for Research in Vision and Ophthalmology Annual Conference, Ft. Lauderdale FL.

PROFESSIONAL CERTIFICATION

Licensed Occupational Therapist, State of South Carolina

Registered Occupational Therapist, National Board for the Certification of Occupational Therapists

PROFESSIONAL MEMBERSHIPS

American Occupational Therapy Association, 1986 – present

South Carolina Occupational Therapy Association, 1995 – 2006

Society for Neuroscience, 2007 - present

Ad-hoc Manuscript Reviewer for the Archives of Physical Medicine and Rehabilitation, 2008

Ad-hoc Manuscript Reviewer for Stroke, 2008